



IAMC 2022

College Park, MD, USA
29 November – 1 December 2022

FINAL PROGRAMME

***** Meeting Time Zone: US East Coast *****

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SCHOOL OF
PUBLIC POLICY
CENTER FOR GLOBAL
SUSTAINABILITY



BEZOS
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FUND

Tokyo	+ 14:00 h
Beijing	+ 13:00 h
Bangalore	+ 10:30 h
CET Brussels	+ 6:00 h
UTC	+ 5:00 h
US East Coast MEETING TIME	00:00
US West Coast	- 3:00 h

Tuesday	Wednesday	Thursday
29 November 2022	30 November 2022	1 December 2022
07.45-08.15 ONLINE Poster Session 1		
08.15-08.45 ONLINE Poster Session 2	08.00-09.00 Sectoral 2 [Room 1]	08.00-09.00 National 1 [Room 2]
09.00-09.30 Opening Session [Room 1]	08.00-09.00 Deep 1 [Room 3]	08.00-09.00 Sustainable 1 [Room 4]
09.30-10.45 Plenary session 1 Informing policymaking and enhancing climate ambition at all levels through integrated assessment modeling [Room 1]	08.00-09.00 Demand/Circular 1 [Room 1]	08.00-09.00 Just 1 [Room 2]
10.45-11.15 break	09.00-10.00 Economic 1 [Room 1]	08.00-09.00 Methods 2 [Room 3]
11.15-12.30 Plenary session 2 Scenario analysis in an insecure world [Room 1]	09.00-10.00 National 2 [Room 2]	08.00-09.00 Impact 2 [Room 4]
12.30-14.00 lunch	09.00-10.00 Deep 2 [Room 3]	09.00-10.20 Demand/Circular 2 [Room 1]
14.00-15.40 Sectoral 1 [Room 1]	10.00-10.30 break	09.00-10.20 Just 2 [Room 2]
14.00-15.40 SSP [Room 2]	10.30-11.30 Economic 2 [Room 1]	09.00-10.20 Methods 3 [Room 3]
14.00-15.40 Electricity and Hydrogen [Room 3]	10.30-11.30 National 3 [Room 2]	09.00-10.20 Impact 3 [Room 4]
14.00-15.40 Land [Room 4]	10.30-11.30 Deep 3 [Room 3]	10.20-10.50 break
15.00-16.00 Methods 1 [Room 1]	10.30-11.30 Sustainable 3 [Room 4]	10.50-11.35 SWGs Sessions: Data Protocols and Management [Room 1] - Scenarios [Room 2] - Scenarios for Climate-related Financial Analysis [Room 3] - National Scenarios [Room 4]
16.00-16.30 IN PERSON poster session 1	11.30-12.30 Economic 3 [Room 1]	11.35-11.45 transfer break
16.30-17.00 IN PERSON poster session 2	11.30-12.30 National 4 [Room 2]	11.45-12.45 Plenary Session 3 Community scenarios [Room 1]
15.40-17.00 Reception	11.30-12.30 Deep 4 [Room 3]	12.45-14.00 lunch
	11.30-12.30 Sustainable 4 [Room 4]	14.00-14.30 Plenary Session 4 Evaluation of COP 27 [Room 1]
	12.30-14.00 lunch	14.30-15.15 Plenary Session 5 Climate justice and just transitions [Room 1]
	14.00-15.00 Climate [Room 1]	15.15-15.40 break
	14.00-15.00 National 5 [Room 2]	15.40-16.00 Community Projects [Room 1]
	14.00-15.20 Presentation/ Stakeholder [Room 3]	16.00-16.30 Reporting back from SWGs [Room 1]
	14.00-15.00 Transition 1 [Room 4]	16.30-17.00 Awards Announcements and Closing Session [Room 1]
	15.00-16.00 Methods 1 [Room 1]	
	15.00-16.00 Non-State [Room 2]	
	15.20-16.00 Impact 1 [Room 3]	
	15.00-16.00 Transition 2 [Room 4]	
	16.00-16.30 break	
	16.30-17.00 ONLINE poster session 3	
	17.00-17.30 ONLINE poster session 4	

Plenary Sessions Programme

ROOM 1	Tuesday 29 Nov 09.00-09.30	OPENING SESSION Chair: Ryna CUI (CGS/UMD)
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- 09.00-09.10 **Welcome address**
 Nathan HULTMAN (Director, CGS/UMD)
 Stephanie WALDHOFF (JGCRI/PNNL), on behalf of Fernando MIRALLES-WILHELM (Director, JGCRI/PNNL)
 John WEYANT (IAMC SSC Chairperson, Stanford University)
- 09.20-09.30 **Quick introduction of the agenda**
 Detlef VAN VUUREN (PBL, UU)

ROOM 1	Tuesday 29 Nov 09.30-10.45	PLENARY SESSION 1 Informing policymaking and enhancing climate ambition at all levels through integrated assessment modeling Chair: Ryna CUI (CGS/UMD)
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- Panel
 Allen FAWCETT (Chief of Climate Economics Branch, U.S. Environmental Protection Agency)
 Colin CUNLIFF (U.S. Department of Energy - Office of Policy)
 Chris HOAGLAND (Director of Air and Radiation, Maryland Department of the Environment)
 Nathan HULTMAN (Director, Center for Global Sustainability, UMD)

ROOM 1	Tuesday 29 Nov 11.15-12.30	PLENARY SESSION 2 Scenario analysis in an insecure world Chair: Massimo TAVONI (RFF-CMCC EIEE and Politecnico di Milano)
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- 11.15-11.30 James ROAF (IMF)
 11.30-11.45 David GROVES (World Bank)
 11.45-12.00 Araceli FERNANDEZ PALES (IEA)
 12.00-12.30 Panel discussion and Q&A
 Brian O'NEILL (PNNL)

ROOM 1	Thursday 1 Dec 11.45-12.45	PLENARY SESSION 3 Community scenarios Chair: Detlef VAN VUUREN (PBL, UU)
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- 11:45-11:55 Jim SKEA (IPCC)
 Lessons for scenario use and development, based on AR6

11:55-12:05	Bas VAN RUIJVEN (IIASA) Lessons from Scenario Forum
12:05-12:20	Keywan RIAHI (IIASA) Scenario database infrastructure developed for AR6
12:20-12:35	KC SAMIR (IIASA) Update on new demographic scenarios
12:35-12:35	Elisa LANZI (OECD) Update on new economic scenarios
12:35-12:45	Q&A

ROOM 1	Thursday 1 Dec 14.00-14.30	PLENARY SESSION 4 Evaluation of COP 27 Chair: Stephanie WALDHOFF (JCGRI/PNNL)
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14:00-14:10	Nathan HULTMAN (CGS/UMD)
14:10-14:20	Vicky POLLARD (EU)
14:20-14:30	Q&A

ROOM 1	Thursday 1 Dec 14.30-15.15	PLENARY SESSION 5 Climate justice and just transitions Chair: Elmar KRIEGLER (PIK)
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14:30-14:40	Johannes EMMERLING (RFF-CMCC European Institute on Economics and the Environment - EIEE)
14:40-14:50	Saritha SUDHARMMA VISHWANATHAN (NIES)
14:50-15:00	Benjamin K. SOVACOOOL (Boston University, Science Policy Research Unit - SPRU at the University of Sussex Business School, Aarhus University)
15:00-15:15	Q&A

ROOM 1	Thursday 1 Dec 15.40-16.00	COMMUNITY PROJECTS Chairs: Jae EDMONDS (PNNL), John WEYANT (Stanford University)
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Announcement of new projects and activities.

ROOM 1	Thursday 1 Dec 16.00-16.30	REPORTING BACK ON SWGs Chair: John WEYANT (Stanford University)
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Scientific Working Group on Data Protocols and Management
 Volker KREY (IIASA)

Scientific Working Group on Evaluation and Diagnostics

Jae EDMONDS (PNNL), Shinichiro FUJIMORI (University of Kyoto)

Scientific Working Group on Scenarios

Keywan RIAHI (IIASA), Detlef VAN VUUREN (PBL, UU)

Scientific Working Group on Scenarios for Climate-related Financial Analysis

Jae EDMONDS (PNNL)

Scientific Working Group on National Scenarios

Shinichiro FUJIMORI (U Kyoto, NIES), Roberto SCHAEFFER (COPPE/UFRJ)

ROOM 1	Thursday 1 Dec 16.30-17.00	AWARDS ANNOUNCEMENTS AND CLOSING SESSION Chairs: John WEYANT (Stanford University), Detlef VAN VUUREN (PBL, UU)
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The winners of the Lifetime Achievement Award (LAA), of the Award for Early Career Researcher (ECRA), of the Award for Extraordinary Contributions to the field of Integrated Assessment Modeling (ECA) and of the Best Poster Award (BPA) will be announced.

Scientific Working Groups Sessions Programme

ROOM 1	Thursday 1 Dec 10.50-11.35	DATA PROTOCOLS AND MANAGEMENT Chair: Volker KREY (IIASA)
ROOM 2	Thursday 1 Dec 10.50-11.35	SCENARIOS Chairs: Keywan RIAHI (IIASA), Detlef VAN VUUREN (PBL, UU)
ROOM 3	Thursday 1 Dec 10.50-11.35	SCENARIOS FOR CLIMATE-RELATED FINANCIAL ANALYSIS Chairs: Jae EDMONDS (PNNL), Elmar KRIEGLER (PIK)
ROOM 4	Thursday 1 Dec 10.50-11.35	NATIONAL SCENARIOS Chairs: Shinichiro FUJIMORI (U Kyoto, NIES), Roberto SCHAEFFER (COPPE/UFRJ)

Parallel Oral Sessions Programme

ROOM 1	Tuesday 29 Nov 14.00-15.40	SECTORAL 1 Chair: John WEYANT (Stanford University)
14.00-14.20	Net-Zero Steel: Decarbonizing the Steel Sector in 1.5°C Pathways [Paper ID 267] <u>Sha YU</u> , Simone Speizer, Siddarth Durga, Molly Charles, Nina Blahut, Jae Edmonds (Joint Global Change Research Institute, Pacific Northwest National Laboratory)	
14.20-14.40	Using LCA/TEA to Characterize Cement Industry Transitions in GCAM [Paper ID 158] <u>Suzanne MOORE NGUYEN</u> (UVA ESE), Joseph Sansalone (UVA ESE), Jay Fuhrman (PNNL JGCRI), Lisa Colosi-Peterson (UVA, ESE), Haewon McJeon (PNNL JGCRI), William Shobe (UVA Batten), Scott Doney (UVA Env Science), Sha Yu (PNNL JGCRI), Andres Clarens (UVA ESE)	
14.40-15.00	Challenges, co-benefits and tradeoffs faced by the Iron and Steel Industry to move towards carbon neutrality in Asian countries [Paper ID 220] <u>Saritha SUDHARMMA VISHWANATHAN</u> , Tatsuya Hanaoka (National Institute for Environmental Studies, NIES)	
15.00-15.20	The future evolution of global natural gas trade [Paper ID 264] <u>Brinda YARLAGADDA</u> , Gokul Iyer, Matthew Binsted, Pralit Patel, Marshall Wise (PNNL/JGCRI)	
15.20-15.40	The role of the petrochemical sector in long-term mitigation scenarios: lessons from perfect-foresight linear optimisation and recursive-dynamic simulation IAMs [Paper ID 279] <u>Marianne ZOTIN</u> (PPE/COPPE/UFRJ), Luiz Bernardo Baptista (PPE/COPPE/UFRJ), Harmen Sytze de Boer (PBL Netherlands Environmental Assessment Agency), Mariësse van Sluisveld (PBL Netherlands Environmental Assessment Agency), Pedro Rochedo (PPE/COPPE/UFRJ), Vassilis Daioglou (PBL Netherlands Environmental Assessment Agency), Alexandre Szklo (PPE/COPPE/UFRJ), Roberto Schaeffer (PPE/COPPE/UFRJ), Detlef van Vuuren (PBL Netherlands Environmental Assessment Agency)	
ROOM 2	Tuesday 29 Nov 14.00-15.40	SSP Chair: Detlef VAN VUUREN (PBL, UU)
14.00-14.20	The SSP-RCP scenario framework: progress, needs, and next steps – Insights from the Scenarios Forum 2022 [Paper ID 237] <u>Bas Van Ruijven</u> (International Institute for Applied System Analysis IIASA), Henrik Carlsen (Stockholm Environment Institute), Vaibhav Chaturvedi (Council on Energy, Environment and Water CEEW), Kristie Ebi (University of Washington), Jan Fuglestedt (Center for International Climate Research), Mary Gasalla (University of Sao Paulo Oceanographic Institute IOUSP), Paula Harrison (UK Centre for Ecology and Hydrology), Kasper Kok (Wageningen University), Elmar Kriegler (Potsdam Institute for Climate Impact Research PIK), Julia Leininger (Institute of Development and Sustainability IDOS), Seth Monteith (ClimateWorks Foundation), Brian C. O'Neill (Joint Global Change Research Institute JGCRI), Laura Pereira (University of the Witwatersrand), Ramon Pichs (Center for World Economy Studies CIEM), Keywan Riahi (International Institute for Applied System Analysis IIASA), Sonia Seneviratne (ETH Zürich) Jana Sillman (Center for International Climate Research CICERO), Kiyoshi Takahashi (National Institute for	

Environmental Studies NIES), Claudia Tebaldi (Joint Global Change Research Institute JGCRI), Detlef VAN VUUREN (Netherlands Environmental Agency)

- 14.20-14.40 **Updating the economic drivers in the SSPs [Paper ID 49]**
Rob Dellink, Laura Atarody, Ruben Bibas, Jean Fouré, Elisa LANZI (OECD)
- 14.40-15.00 **Population heterogeneity under SSPs at the sub-national level in India [Paper ID 159]**
Samir KC (International Institute for Applied Systems Analysis IIASA, Asian Demographic Research Institute ADRI) at Shanghai University, Wittgenstein Centre for Demography and Global Human Capital, Moradhvaj Moradhvaj (Austrian Academy of Sciences Vienna Institute of demography, Wittgenstein Centre for Demography and Global Human Capital)
- 15.00-15.20 **Projections of access to water and sanitation for urban and rural population along the SSPs scenario framework [Paper ID 241]**
Willem Verhagen, Mohammad T. IRFAN, Collin D. Meisel, Jonathan D. Moyer (Frederick S Pardee Center for International Futures, Josef Korbel School of International Studies, University of Denver)
- 15.20-15.40 **Regional rivalry: SSP3 modelling of the war in Ukraine [Paper ID 89]**
Áron Dénes HARTVIG (Corvinus University of Budapest; Cambridge Econometrics), Bence Kiss-Dobronyi (Corvinus University of Budapest; Cambridge Econometrics), Pim Vercoulen (University of Exeter, Cambridge Econometrics), András Zareczky (Corvinus University of Budapest)

ROOM 3	<p style="color: red; font-weight: bold;">Tuesday</p> <p style="font-size: 2em; font-weight: bold;">29</p> <p style="font-size: 1.5em; font-weight: bold;">Nov</p> <p style="font-weight: bold;">14.00-15.40</p>	<h2 style="margin: 0;">ELECTRICITY AND HYDROGEN</h2> <p style="margin: 0;">Chair: Falko UECKERDT (PIK)</p>
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- 14.00-14.20 **Pathways towards Carbon Neutrality: Special Report on Electrification in China's Carbon Neutrality Pathways [Paper ID 12]**
Sha Yu (Center for Global Sustainability, School of Public Policy, University of Maryland/ Joint Global Change Research Institute, Pacific Northwest National Laboratory), Jenna BEHRENDT (Center for Global Sustainability, School of Public Policy, University of Maryland), Leon Clarke (Center for Global Sustainability, School of Public Policy, University of Maryland), Xinzhaoh Cheng (Center for Global Sustainability, School of Public Policy, University of Maryland), Qimin Chai (Tsinghua University/ National Center for Climate Change Strategy and International Cooperation NCSC), Wenying Chen (Tsinghua University), Xuan Du (Energy Foundation China), Sha Fu (Energy Foundation China), Fei Guo (International Institute for Applied Systems Analysis IIASA), Kejun Jiang (Energy Research Institute), Nina Khanna (Lawrence Berkeley National Laboratory LBNL), Wang Ke (Renmin University/Harbin Institute of Technology HIT), Volker Krey (International Institute for Applied Systems Analysis IIASA), Junling Liu (Harbin Institute of Technology HIT), Hongyou Lu (Lawrence Berkeley National Laboratory LBNL), Xiao Qin (CREEI China Renewable Energy Engineering Institute), Yazhen Wu (Peking University), Zhuoxiang Yang (Energy Foundation China), Shu Zhang (Tsinghua University), Nan Zhou (Lawrence Berkeley National Laboratory LBNL)
- 14.20-14.40 **Towards a Zero-Carbon Power Sector for India in 2050: IDEEA Model-Based Scenarios Integrating Wind and Solar Complementarity and Geospatial Endowments [Paper ID 31]**
Oleg LUGOVOY (Environmental Defense Fund), Varun Jyothiprakash (Indian Institute of Science Bangalore), Sourish Chatterjee (Jadavpur University), Samridh Sharma (Indian Institute of Science Bangalore), Arijit Mukherjee (Jadavpur University), Abhishek Das (Indian Institute of Science Bangalore), Shreya Some (Jadavpur University), Disha L Dinesha (Indian Institute of Science Bangalore), Nandini Das

(Jadavpur University), Parthaa Bosu (Environmental Defense Fund), Shyamasree Dasgupta (Indian Institute of Technology Mandi), Lavanya Padhi (Environmental Defense Fund), Biswanath Roy (Jadavpur University), Biswajit Thakur (Meghnad Saha Institute of Technology), Anupam Debsarkar (Jadavpur University), Balachandra Patil (Indian Institute of Science Bangalore), Joyashree Roy (Asian Institute of Technology)

- 14.40-15.00 **Probabilistic feasibility space of scaling up green hydrogen supply [Paper ID 228]**
Adrian Odenweller (Potsdam Institute for Climate Impact Research), Falko UECKERDT (Potsdam Institute for Climate Impact Research), Gregory F. Nemet (La Follette School of Public Affairs, University of Wisconsin-Madison), Miha Jensterle (adelphi research gGmbH), Gunnar Luderer (Potsdam Institute for Climate Impact Research)
- 15.00-15.20 **The value of hydrogen for climate change mitigation [Paper ID 255]**
Paul Wolfram, Page Kyle, Jay FUHRMAN, Patrick O'Rourke
(Joint Global Change Research Institute, Pacific Northwest National Laboratory)
- 15.20-15.40 **Discussion**

ROOM 4	Tuesday 29 Nov 14.00-15.40	<h2 style="margin: 0;">LAND</h2> <p style="margin: 0;">Chair: Stephanie WALDHOFF (JCGRI/PNNL)</p>
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- 14.00-14.20 **Technological carbon removal and the optimal role of forests in a global welfare-maximizing climate policy [Paper ID 191]**
Aapo RAUTIAINEN, Finnish Meteorological Institute
- 14.20-14.40 **The potential scale and impacts of enhancing the terrestrial carbon sink via changing agricultural practices in long-run climate scenarios [Paper ID 125]**
Patrick LAMERS (National Renewable Energy Laboratory), Marshall Wise (Joint Global Change Research Institute, Pacific Northwest National Laboratory and University of Maryland), Candelaria Bergero (Joint Global Change Research Institute, Pacific Northwest National Laboratory and University of Maryland), Maridee Weber (Joint Global Change Research Institute, Pacific Northwest National Laboratory and University of Maryland), Yong Wang (National Renewable Energy Laboratory), Greg Avery (National Renewable Energy Laboratory), Kendalynn Morris (Joint Global Change Research Institute, Pacific Northwest National Laboratory and University of Maryland), Jae Edmonds (Joint Global Change Research Institute, Pacific Northwest National Laboratory and University of Maryland)
- 14.40-15.00 **The contribution of land-based carbon dioxide removal in 1.5 °C and 2.0 °C futures [Paper ID 274]**
Xin ZHAO, Marshall Wise, Haewon, McJeon
(Joint Global Change Research Institute Pacific Northwest National Laboratory)
- 15.00-15.40 **Discussion**

ROOM 1	<p style="color: red; margin: 0;">Wednesday</p> <p style="font-size: 24px; margin: 0;">30</p> <p style="font-size: 24px; margin: 0;">Nov</p> <p style="margin: 0;">08.00-09.00</p>	<p style="font-size: 24px; margin: 0;">SECTORAL 2</p> <p style="margin: 0;">Chair: Saritha Sudharma VISHWANATHAN (NIES)</p>
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- 08.00-08.20 **China's low-carbon transition of transportation towards carbon neutrality [Paper ID 57]**
 Quanying Lu (Academy of Mathematics and Systems Science, Chinese Academy of Sciences), Hongbo DUAN (School of Economics and Management, University of Chinese Academy of Sciences), Shouyang Wang (School of Economics and Management, University of Chinese Academy of Sciences)
- 08.20-08.40 **Quantifying Policy Gaps for Achieving the Net-zero GHG Emissions Target in the U.S. Light-duty Vehicle Market Through Electrification [Paper ID 176]**
Shiqi OU, Zhenhong Lin
 (Oak Ridge National Laboratory)
- 08.40-09.00 **Discussion**

ROOM 1	<p style="color: red; margin: 0;">Wednesday</p> <p style="font-size: 24px; margin: 0;">30</p> <p style="font-size: 24px; margin: 0;">Nov</p> <p style="margin: 0;">09.00-10.00</p>	<p style="font-size: 24px; margin: 0;">ECONOMIC 1</p> <p style="margin: 0;">Chair: Elmar KRIEGLER (PIK)</p>
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- 09.00-09.20 **Comprehensive evidence implies a higher social cost of CO2 [Paper ID 189]**
 Kevin Rennert (Resources for the Future), Frank Errickson (School of Public and International Affairs, Princeton University), Brian C. PREST (Resources for the Future), Lisa Rennels (Energy and Resources Group, University of California, Berkeley), Richard G. Newell (Resources for the Future), William A. Pizer (Resources for the Future), Cora Kingdon (Energy and Resources Group, University of California, Berkeley), Jordan Wingenroth (Resources for the Future), Roger Cooke (Resources for the Future), Bryan Parthum (Environmental Protection Agency), David Smith (Environmental Protection Agency), Kevin Cromar (Marron Institute of Urban Management, New York University, NYU Grossman School of Medicine), Delavane Diaz (EPRI), Frances C. Moore (Department of Environmental Science and Policy, University of California, Davis), Ulrich K. Müller (Department of Economics, Princeton University), Richard J. Plevin (Independent researcher), Adrian E. Raftery (Departments of Statistics and Sociology, University of Washington), Hana Ševčíková (Center for Statistics and the Social Sciences, University of Washington), Hannah Sheets (School of Mathematical Sciences, Rochester Institute of Technology), James H. Stock (Department of Economics, Harvard University), Tammy Tan (Environmental Protection Agency), Mark Watson (Department of Economics, Princeton University), Tony E. Wong (School of Mathematical Sciences, Rochester Institute of Technology), David Anthoff (Energy and Resources Group, University of California, Berkeley)
- 09.20-09.40 **Climate change cost decomposition [Paper ID 72]**
Shinichiro FUJIMORI (Kyoto University), Ken Oshiro (Kyoto University), Tomoko Hasegawa (Ritsumeikan University), Hiroto Shiraki (the University of Shiga prefecture), Junya Takakura (NIES), Kiyoshi Takahashi (NIES)
- 09.40-10.00 **Public finance resilience in the low-carbon transition: the role of policy instruments [Paper ID 64]**
Jean FOURÉ (OECD), Elisa Lanzi (OECD), Filippo Pavanello (University of Bologna)

ROOM 1	Wednesday 30 Nov 10.30-11.30	ECONOMIC 2 Chair: Elmar KRIEGLER (PIK)
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- 10.30-10.50 **Diagnosing inter-model differences in the macro-economic implications of deep mitigation [Paper ID 120]**
Alexandre C KÖBERLE (Imperial College London), Shivika Mittal (Imperial College London), Ajay Gambhir (Imperial College London), Dirk van de Ven (Basque Centre for Climate Change BC3), Ha Bui (Cambridge Econometrics), Lorenza Campagnolo (Euro-Mediterranean Center on Climate Change CMCC), Elisa Delpiazzi (Euro-Mediterranean Center on Climate Change CMCC), Marc Vielle (École Polytechnique Fédérale de Lausanne EPFL), Perdana Sigit Pria (École Polytechnique Fédérale de Lausanne EPFL), Sara Giarola (Imperial College London), Joeri Rogelj (Imperial College London), Alexandros Nikas (National Technical University of Athens)
- 10.50-11.10 **Welfare Maximizing Climate Policy and the Role of Interregional Transfers [Paper ID 127]**
Simon LANG (Yale University)
- 11.10-11.30 **Effectiveness of emissions trading under the updated national emissions targets by 2030 [Paper ID 227]**
Toshiki TSUTSUI, Osamu Nishiura, Shinichiro Fujimori, Ken Oshiro (Department of Environmental Engineering, Kyoto University)

ROOM 1	Wednesday 30 Nov 11.30-12.30	ECONOMIC 3 Chair: Elmar KRIEGLER (PIK)
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- 11.30-11.50 **Effort sharing in net zero emission scenarios and implications for distribution of economic benefits in Article 6 global carbon markets [Paper ID 77]**
Mel GEORGE (Center for Global Sustainability), Sha Yu (Pacific Northwest National Lab), James Edmonds (Pacific Northwest National Lab)
- 11.50-12.10 **Embodied energy and emissions in a decarbonised world [Paper ID 74]**
Rafael GARAFFA, Matthias Weitzel, Toon Vandyck, Jose Ordonez (European Commission Joint Research Centre)
- 12.10-12.30 **Discussion**

ROOM 1	Wednesday 30 Nov 14.00-15.00	CLIMATE Chair: Matthias WEITZEL (European Commission - JRC-Seville)
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- 14.00-14.20 **Will land sink reversal make drawdown more challenging? [Paper ID 62]**
 Peter Thornton (Environmental Sciences Division, Oak Ridge National Laboratory), David McCollum (Buildings and Transportation Science Division, Oak Ridge National Laboratory), Xiaoying Shi (Environmental Sciences Division, Oak Ridge National Laboratory), Daniel Ricciuto (Environmental Sciences Division, Oak Ridge National Laboratory), John FIELD (Environmental Sciences Division, Oak Ridge National Laboratory)

- 14.20-14.40 **IPCC AR6 climate scenarios and the open-source “climate-assessment” tool for IAM emissions scenarios [Paper ID 116]**
Jarmo KIKSTRA (IIASA), Zebedee Nicholls (University of Melbourne), Christopher Smith (University of Leeds), Jared Lewis (University of Melbourne), Robin Lamboll (Imperial College London), Edward Byers (IIASA), Marit Sandstad (CICERO), Malte Meinshausen (University of Melbourne), Matthew Gidden (IIASA), Joeri Rogelj (Imperial College London), Elmar Kriegler (PIK), Glen Peters (CICERO), Jan Fuglestad (CICERO), Ragnhild Skeie (CICERO), Bjørn Samset (CICERO), Laura Wienpahl (IIASA), Detlef Van Vuuren (PBL), Kaj-Ivar Van der Wijst (Utrecht University), Alaa Al Khourdajie (Imperial College London), Piers Forster (University of Leeds), Andy Reisinger (Australian National University), Roberto Schaeffer (COPPE), Keywan Riahi (IIASA)
- 14.40-15.00 **Assessing the size and robustness of remaining carbon budgets [Paper ID 124]**
Robin D. LAMBOLL (Center for Environmental Policy, Imperial College London), Zebedee R. J. Nicholls (Australian-German Climate and Energy College, The University of Melbourne and School of Earth Sciences, The University of Melbourne), Chris Smith (School of Earth and Environment, University of Leeds and International Institute for Applied Systems Analysis), Jarmo Kikstra (Center for Environmental Policy, Imperial College London and International Institute for Applied Systems Analysis), Joeri Rogelj (Center for Environmental Policy, Imperial College London and International Institute for Applied Systems Analysis)

ROOM 1

Wednesday
30
 Nov
 15.00-16.00

METHODS 1

Chair: **Stephanie WALDHOFF (JCGRI/PNNL)**

- 15.00-15.20 **Characterization of energy models by means of diagnostic indicators [Paper ID 48]**
Mark DEKKER (PBL), Detlef van Vuuren (PBL), Robert Pietzcker (PIK), Gunnar Luderer (PIK), Renato Rodrigues (PIK), Francesco Lombardi (TUD), Will Usher (KTH), Hauke Henke (KTH), Johannes Emmerling (CMCC), Francesco Dalla Longa (TNO), Bob van der Zwaan (TNO), Laurent Drouet (CMCC), Panagiotis Fragkose (E3M), Ioannis Tsiropoulos (E3M), Theofano Fotiou (E3M), Stefan Pfenninger (TUD), Emir Fejzic (KTH), Igor Tatarewicz (KOBIZE), Michal Lewarski (KOBIZE), Lukas Kranzl (TU Wien), Behnam Zakeri (IIASA), Volker Krey (IIASA), Oliver Fricko (IIASA), Daniel Huppmann (IIASA), Joanna Sitarz (PIK), Larissa Nogueira (TNO), Vassilis Diaoglou (PBL)
- 15.20-15.40 **Building a Better Macroeconomic Model for GCAM: Two-Way Coupling of the Economy, Energy and Agriculture-Land-Use Systems [Paper ID 58]**
Jae EDMONDS (PNNL), Xin Zhao (PNNL), Praliti Patel (PNNL), Siwa Msangi (US Dept of Agriculture, Economic Research Service), Sonny Kim (PNNL), Stephanie Waldhoff (PNNL)
- 15.40-16.00 **Land-use patterns as socio-economic forcing data for climate impact simulations in the ISIMIP3b round [Paper ID 157]**
Edna MOLINA BACCA (Potsdam Institute for Climate Impact Research PIK), Miodrag Stevanović (Potsdam Institute for Climate Impact Research PIK), Jonathan Doelman (PBL Netherlands Environmental Assessment Agency), Tamas Krisztin (IIASA International Institute for Applied System Analysis), Michael Wögerer (IIASA International Institute for Applied System Analysis), Louise Parsons Chini (Department of Geographical Sciences, the University of Maryland), Christopher Reyer (Potsdam Institute for Climate Impact Research PIK), Benjamin Leon Bodirsky (Potsdam Institute for Climate Impact Research PIK), Esther Boere (IIASA International Institute for Applied System Analysis), Stefan Frank (IIASA International Institute for Applied System Analysis), Katja Frieler (Potsdam Institute for Climate Impact Research PIK), Petr Havlik (IIASA International Institute for Applied System Analysis), Florian Humpenöder (Potsdam Institute for Climate Impact Research PIK), George Hurtt (Department of Geographical Sciences, the University of Maryland), Hermann LotzeCampen (Potsdam Institute for Climate Impact Research PIK), Alexander Popp (Potsdam Institute for Climate Impact Research PIK), Elke Stehfest (PBL Netherlands Environmental Assessment Agency)

ROOM 2

Wednesday

30
Nov
08.00-09.00**NATIONAL 1**

Chair: Shinichiro FUJIMORI (University of Kyoto)

- 08.00-08.20 **Intermodel Comparison of the U.S. Greenhouse Gas Emission Reduction Pathways [Paper ID 149]**
John Bistline (Electric Power Research Institute), Nikit Abhyankar (Lawrence Berkeley National Laboratory), Geoffrey Blanford (Electric Power Research Institute), Leon Clarke (Bezos Earth Fund), Rachel Fakhry (Natural Resources Defense Council), Haewon MCJEON (Pacific Northwest National Laboratory), John Reilly (MIT Joint Program on the Science and Policy of Global Change), Christopher Roney (Electric Power Research Institute), Tom Wilson (Electric Power Research Institute), Mei Yuan (MIT Joint Program on the Science and Policy of Global Change), Alicia Zhao (Center for Global Sustainability)
- 08.20-08.40 **Rapid electrification of the energy system facilitates transition towards net-zero emissions in the United States [Paper ID 171]**
Kowan O'KEEFE (Center for Global Sustainability), Gokul Iyer (Center for Global Sustainability, Pacific Northwest National Laboratory, Joint Global Change Research Institute at the University of Maryland), Kathleen Kennedy (Center for Global Sustainability), Yang Ou (Pacific Northwest National Laboratory, Joint Global Change Research Institute at the University of Maryland), Alicia Zhao (Center for Global Sustainability), Ryna Cui (Center for Global Sustainability, Pacific Northwest National Laboratory, Joint Global Change Research Institute at the University of Maryland), Haewon McJeon (Center for Global Sustainability, Pacific Northwest National Laboratory, Joint Global Change Research Institute at the University of Maryland)
- 08.40-09.00 **Discussion**

ROOM 2

Wednesday

30
Nov
09.00-10.00**NATIONAL 2**

Chair: Jae EDMONDS (JGCRI/PNNL)

- 09.00-09.20 **Development and Application of the GCAM-Canada Model for Energy Scenario Analysis [Paper ID 239]**
Diego V. CHIAPPORI (Department of Civil and Environmental Engineering, University of Alberta), Matthew Binsted (Joint Global Change Research Institute, Pacific Northwest National Laboratory), Evan G.R. Davies (Department of Civil and Environmental Engineering, University of Alberta), Tanner Stelmach (Joint Global Change Research Institute, Pacific Northwest National Laboratory), Evan J. Arbuckle (Department of Civil and Environmental Engineering, University of Alberta), Muhammad-Shahid Siddiqui (Economic Analysis Directorate, Environment and Climate Change Canada), Osama Younis (Department of Civil and Environmental Engineering, University of Alberta)
- 09.20-09.40 **Macro-economic impacts of low-carbon infrastructure investments in France [Paper ID 87]**
Meriem HAMDY-CHERIF (Sciences Po OFCE), Alexandre Tourbah (Sciences Po OFCE), Frédéric Reynes (NEO - Netherlands Economic Observatory, TNO - Netherlands Organization for Applied Scientific Research and Sciences Po OFCE), Paul Malliet (Sciences Po OFCE), Jinxue Hu (NEO - Netherlands Economic Observatory), Gissela Landa (Sciences Po OFCE)
- 09.40-10.00 **Reaching net zero emissions in Switzerland: Insights from a model intercomparison [Paper ID 144]**
Adriana MARCUCCI (ETH Zurich), Gianfranco Guidati (ETH Zurich)

ROOM 2

Wednesday
30
Nov
10.30-11.30

NATIONAL 3

Chair: Shinichiro FUJIMORI (University of Kyoto)

- 10.30-10.50 **Strategies for achieving net-zero emissions in the EU: impacts of technology availability, sector policies and behavioral change [Paper ID 219]**
Jessica STREFLER, Leon Merfort, Nico Bauer, Miodrag Stefanovic, Robert Pietzcker, Michaja Pehl, Renato Rodrigues, Marianna Rottoli, Elmar Kriegler (PIK)
- 10.50-11.10 **Can biofuels delay the electrification of transport in Brazil? [Paper ID 184]**
Matheus POGGIO (Universidade Federal do Rio de Janeiro), Mariana Império (Universidade Federal do Rio de Janeiro), Luiz Bernardo Baptista (Universidade Federal do Rio de Janeiro), Alexandre Szklo (Universidade Federal do Rio de Janeiro), Roberto Schaeffer (Universidade Federal do Rio de Janeiro), Pedro R. R. Rochedo (Universidade Federal do Rio de Janeiro), André F. P. Lucena (Universidade Federal do Rio de Janeiro), Leon Clarke (University of Maryland), Nathan Hultman (University of Maryland), Alicia Zhao (University of Maryland), Haewon McJeon (Joint Global Change Research Institute)
- 11.10-11.30 **Integrated Assessment Modeling of Korea's 2050 Carbon Neutrality Technology Pathways [Paper ID 117]**
Hanwoong KIM (College of Business, Korea Advanced Institute of Science and Technology - KAIST), Haewon McJeon (Joint Global Change Research Institute, Pacific Northwest National Laboratory - PNNL), Dawoon Jung (College of Business, Korea Advanced Institute of Science and Technology - KAIST), Hanju Lee (College of Business, Korea Advanced Institute of Science and Technology - KAIST), Candelaria Bergero (Joint Global Change Research Institute, Pacific Northwest National Laboratory - PNNL), Jiyong Eom (College of Business, Korea Advanced Institute of Science and Technology - KAIST)

ROOM 2

Wednesday
30
Nov
11.30-12.30

NATIONAL 4

Chair: Jae EDMONDS (JGCRI/PNNL)

- 11.30-11.50 **Advances in National-Level Integrated Assessment Modeling: Recent Development and Applications of the GCAM Model in African Countries [Paper ID 200]**
Silvia Regina SANTOS DA SILVA (College of Science, George Mason University), Fernando Miralles-Wilhelm (College of Science, George Mason University), Page Kyle (Joint Global Change Research Institute, Pacific Northwest National Laboratory - PNNL), Zarrar Khan (Joint Global Change Research Institute, Pacific Northwest National Laboratory - PNNL), Bogochan Benli (The World Bank), Aleix Serrat-Capdevila (The World Bank), Nathan L. Engle (The World Bank), Homero Paltan (The World Bank), Diego Rodriguez (The World Bank)
- 11.50-12.10 **Race to a Net-Zero Energy Systems: The Water, Land and Food nexus implications in the sub-Saharan Africa Region [Paper ID 7]**
Raphael APEANING (Institute for Carbon Removal Law and Policy), Mohammed Osman (Stony Brook University), David Morrow (Institute for Carbon Removal Law and Policy), Haewon McJeon (PNNL), Garrett Guard (Institute for Carbon Removal Law and Policy)
- 12.10-12.30 **Achieving national net-zero emissions targets for major emitters [Paper ID 41]**
Ioannis DAFNOMILIS (Netherlands Environmental Assessment Agency - PBL), Michel den Elzen (Netherlands Environmental Assessment Agency - PBL), Detlef van Vuuren (Copernicus Institute of Sustainable Development)

ROOM 2	<p style="color: red; margin: 0;">Wednesday</p> <p style="font-size: 24px; margin: 0;">30</p> <p style="font-size: 24px; margin: 0;">Nov</p> <p style="margin: 0;">14.00-15.00</p>	<p style="font-size: 24px; margin: 0;">NATIONAL 5</p> <p style="margin: 0;">Chair: Roberto SCHAEFFER (COPPE)</p>
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- 14.00-14.20 **An Open and Transparent Modelling Initiative for Globally Implemented Emission Reduction Policies [Paper ID 231]**
Dirk-Jan VAN DE VEN (Basque Centre for Climate Change)
- 14.20-14.40 **Top 20 mitigation levers to bend the emissions curve [Paper ID 207]**
Fabio SFERRA, Bas van Ruijven, Elina Brutschin, Lena Höglund-Isaksson, Keywan Riahi, Philip Hackstock, Florian Maczek (IIASA)
- 14.40-15.00 **Discussion**

ROOM 2	<p style="color: red; margin: 0;">Wednesday</p> <p style="font-size: 24px; margin: 0;">30</p> <p style="font-size: 24px; margin: 0;">Nov</p> <p style="margin: 0;">15.00-16.00</p>	<p style="font-size: 24px; margin: 0;">NON-STATE</p> <p style="margin: 0;">Chair: Volker KREY (IIASA)</p>
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- 15.00-15.20 **Quantifying Non-state and Subnational Climate Mitigation Contributions with IAMs [Paper ID 99]**
 Angel Hsu (University of North Carolina at Chapel Hill), Mark ROELFSEMA (Utrecht University), Takeshi Kuramochi (NewClimate Institute), Zhi Yi Yeo (University of North Carolina at Chapel Hill)
- 15.20-15.40 **An “All-In” Pathway To 2030: Federal and Non-Federal Climate Actions Needed to Reduce Transportation Sector Emissions [Paper ID 271]**
Alicia ZHAO (Center for Global Sustainability, University of Maryland), Haewon McJeon (Center for Global Sustainability, University of Maryland and Pacific Northwest National Laboratory), Ryna Cui (Center for Global Sustainability, University of Maryland), Tom Cyrs (World Resources Institute), John Feldmann (World Resources Institute), Gokul Iyer (Center for Global Sustainability, University of Maryland and Pacific Northwest National Laboratory), Kathleen Kennedy (Center for Global Sustainability, University of Maryland), Kevin Kennedy (World Resources Institute), Shannon Kennedy (Center for Global Sustainability, University of Maryland), Kowan O'Keefe (Center for Global Sustainability, University of Maryland), Sujata Rajpurohit (World Resources Institute), Lainie Rowland (Rocky Mountain Institute), Nate Hultman (Center for Global Sustainability, University of Maryland)
- 15.40-16.00 **Enabling or hampering? The impact of investors’ expectations and climate risk assessment on mitigation scenarios [Paper ID 3]**
 Alaa Al Khourdajie (Imperial College London), Stefano Battiston (University of Zurich), Irene Monasterolo (EDHEC), Bas VAN RUIJVEN (International Institute for Applied System Analysis IIASA), Jihoon Min (International Institute for Applied System Analysis IIASA), Keywan Riahi (International Institute for Applied System Analysis IIASA)

ROOM 3

Wednesday

30
Nov
08.00-09.00**DEEP 1**
Chair: Roberto SCHAEFFER (COPPE)

- 08.00-08.20 **A multi-model assessment of the interplay between fossil-extraction bans and demand-side policies in ambitious mitigation scenarios [Paper ID 6]**
Pietro ANDREONI (CMCC and Politecnico di Milano), Lara Aleluia Reis (CMCC), Laurent Drouet (CMCC), Olivier Dessens (UCL), Panagiotis Fragkos (E3M), Robert Pietzcker (PIK), Steve Pye (UCL), Renato Rodrigues (PIK), Massimo Tavoni (CMCC and Politecnico di Milano)
- 08.20-08.40 **Model intercomparison analysis. Comparison between IAMs and energy models [Paper ID 153]**
Stratos MIKROPOULOS (Utrecht University), Gabriel Oreggioni (Imperial College London), Mark Roelfsema (PBL), Iain Staffell (Imperial College London), Detlef van Vuuren (PBL, Utrecht University)
- 08.40-09.00 **Course correcting 1.5oC mitigation pathways in light of new adverse information [Paper ID 73]**
Ajay Gambhir (Imperial College London), Shivika Mittal (Imperial College London), Robin LAMBOLL (Imperial College London), Neil Grant (Imperial College London), Alexandre C. Köberle (Imperial College London), Adam Hawkes (Imperial College London), Joeri Rogelj (Imperial College London), Jason Lowe (Met Office Hadley Centre)

ROOM 3

Wednesday

30
Nov
09.00-10.00**DEEP 2**
Chair: Roberto SCHAEFFER (COPPE)

- 09.00-09.20 **Tracing the transformation through a decade of mitigation scenarios [Paper ID 65]**
Dirk J. VAN DE VEN (Basque Centre for Climate Change), Panagiotis Fragkos (E3 Modelling), Faidra Filippidou (E3 Modelling), Lukas Hermwille (Wuppertal Institute for Climate, Environment and Energy), Wolfgang Obergassel (Wuppertal Institute for Climate, Environment and Energy), Leon Clarke (Bezos Earth Fund), Ajay Gambhir (Grantham Institute, Imperial College), Mikel Gonzalez-Eguino (Basque Centre for Climate Change), Shivika Mittal (Grantham Institute, Imperial College), Alexandros Nikas (National Technical University of Athens), G. Peters (CICERO Center for International Climate Research), I. Sognnaes (CICERO Center for International Climate Research)
- 09.20-09.40 **An R&D investment strategy to achieve the Paris agreement targets [Paper ID 243]**
Lara Aleluia Reis (RFF-CMCC European Institute of Economics and the Environment, Euro-Mediterranean Center on Climate Change), Elena Verdolini (RFF-CMCC European Institute of Economics and the Environment, Euro-Mediterranean Center on Climate Change), Kostas Fragkiadakis (E3Modelling S.A.), Massimo TAVONI (RFF-CMCC European Institute of Economics and the Environment, Euro-Mediterranean Center on Climate Change)
- 09.40-10.00 **Towards Full Representation of the Carbon Dioxide Removal Portfolio in Integrated Assessment Models [Paper ID 71]**
Jay FUHRMAN (PNNL), Candelaria Bergero (PNNL), Maridee Weber (PNNL), Seth Monteith (ClimateWorks Foundation), Frances Wang (ClimateWorks Foundation), Andres F. Clarens (University of Virginia), Scott C. Doney (University of Virginia), William Shobe (University of Virginia), Haewon McJenon (PNNL)

ROOM 3	Wednesday 30 Nov 10.30-11.30	DEEP 3 Chair: Roberto SCHAEFFER (COPPE)
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- 10.30-10.50 **Fairness and feasibility in deep mitigation pathways using engineered carbon removals [Paper ID 80]**
Matthew GIDDEN, Elina Brutschin, Oliver Fricko, Jarmo Kikstra, Gamze Unlu, Behnam Zakeri, Keywan, Riahi (IIASA)
- 10.50-11.10 **Separating targets for abatement and carbon dioxide removal: a way to better control emission pathways and risks [Paper ID 152]**
Anne MERFORT, Jessica Strefler, Elmar Kriegler, Nico Bauer, Gunnar Luderer (Potsdam Institute for Climate Impact Research)
- 11.10-11.30 **The potential of carbon capture and utilization for global net-zero emission energy systems [Paper ID 175]**
Ken OSHIRO, Shinichiro Fujimori (Kyoto University)

ROOM 3	Wednesday 30 Nov 11.30-12.30	DEEP 4 Chair: Roberto SCHAEFFER (COPPE)
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- 11.30-11.50 **Paris Agreement targets under uncertain carbon dioxide removal and climate sensitivity [Paper ID 202]**
Theresa SCHABER, Tommi Ekholm, Antti-Ilari Partanen, Joonas Merikanto (Finnish Meteorological Institute)
- 11.50-12.10 **Assessing the Sustainability and Resilience of Distributed Direct Air Capture at the Urban Scale (UrbanDAC) [Paper ID 27]**
Thomaz CARVALHAES (Built Environment Characterization Group; Geospatial Science and Human Security Division; Oak Ridge National Laboratory), Nasir Ahmad (Built Environment Characterization Group; Geospatial Science and Human Security Division; Oak Ridge National Laboratory), David McCollum (Mobility and Energy Transitions Analysis Group; Buildings and Transportation Science Division; Oak Ridge National Laboratory)
- 12.10-12.30 **Discussion**

ROOM 3	Wednesday 30 Nov 14.00-15.20	PRESENTATION/STAKEHOLDER Chair: Elmar KRIEGLER (PIK)
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- 14.00-14.20 **Interactive Climate Solutions & Impacts Explorer [Paper ID 21]**
Edward Byers, Michaela Werning, Max Wolshlager, Daniel Huppmann, Volker KREY, Bas Van Ruijven, Keywan Riahi (IIASA)

- 14.20-14.40 **National Stakeholder Engagement across National DDP Assessments [Paper ID 226]**
 Marta Torres Gunfaus (Institute of Sustainable Development and International Relations IDDRI, Sciences Po), Henri Waisman (Institute of Sustainable Development and International Relations IDDRI, Sciences Po), Lauren Harry-Villain (Institute of Sustainable Development and International Relations IDDRI, Sciences Po), Johannes Svensson (Institute of Sustainable Development and International Relations IDDRI, Sciences Po), Saritha SUDHARMMA VISHWANATHAN (Indian Institute of Management Ahmedabad IIMA), Amit Garg (Indian Institute of Management Ahmedabad IIMA), Hilton Trollip (University of Cape Town UCT), Bryce McCall (University of Cape Town UCT), Emilio L. La Rovere (Federal University of Rio de Janeiro UFRJ), Carolina B.S. Dubeux (Federal University of Rio de Janeiro UFRJ), Ucok Siagan (Bandung Institute of Technology ITB), Rizaldi Boer (Bogor Agricultural Institute IPB)
- 14.40-15.00 **Beyond science communication: exploring new links between IAMs and artistic practices [Paper ID 230]**
Detlef VAN VUUREN (PBL, UU), Lisette van Beek (UU) Julien Thomas (Perception Design Studio), Ekaterina Volkova (Perception Design Studio)
- 15.00-15.20 **Discussion**

ROOM 3	<p style="color: red; margin: 0;">Wednesday</p> <p style="font-size: 2em; margin: 0;">30</p> <p style="font-size: 2em; margin: 0;">Nov</p> <p style="margin: 0;">15.20-16.00</p>	<p style="font-size: 2em; margin: 0;">IMPACT 1</p> <p style="margin: 0;">Chair: Roberto SCHAEFFER (COPPE)</p>
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- 15.20-15.40 **Implications of the climate change impacts on the Brazilian energy, water and food securities, and the socioeconomics aspects. [Paper ID 240]**
Eveline VASQUEZ-ARROYO (Centre for Energy and Environmental Economics - CENERGIA / COPPE-UFRJ), Fabio A. Diuana (Centre for Energy and Environmental Economics - CENERGIA / COPPE-UFRJ), Fábio da Silva (Centre for Energy and Environmental Economics - CENERGIA / COPPE-UFRJ), Tarik Tanure (Núcleo de Estudos em Modelagem Econômica e Ambiental Aplicada - CEDEPLAR/UFMG), Ademir Rocha (Department of Economics, University of São Paulo), Amanda Vinhoza (Centre for Energy and Environmental Economics - CENERGIA / COPPE-UFRJ), Alberto Santos (Centre for Energy and Environmental Economics - CENERGIA / COPPE-UFRJ), Paula Bezerra (Centre for Energy and Environmental Economics - CENERGIA / COPPE-UFRJ), Eduardo Haddad (Department of Economics, University of São Paulo), Edson Domingues (Centre for Energy and Environmental Economics - CENERGIA / COPPE-UFRJ), Aline Magalhães (Núcleo de Estudos em Modelagem Econômica e Ambiental Aplicada - CEDEPLAR/UFMG), Pedro Rochedo (Centre for Energy and Environmental Economics - CENERGIA / COPPE-UFRJ), André F. P. Lucena (Centre for Energy and Environmental Economics - CENERGIA / COPPE-UFRJ), Roberto Schaeffer (Centre for Energy and Environmental Economics - CENERGIA / COPPE-UFRJ)
- 15.40-16.00 **Mitigation vs Adaptation investment scenarios including WEL biophysical climate impacts in IAMs [Paper ID 242]**
 Adriano Vinca, Muhammad Awais, Edward Byers, Oliver Fricko, Stefan Frank, Yusuke Satoh, Volker Krey, Keywan RIAHI (International Institute for Applied Systems Analysis - IIASA)

ROOM 4

Wednesday
30
Nov
08.00-09.00

SUSTAINABLE 1

Chair: Detlef VAN VUUREN (PBL, UU)

- 08.00-08.20 **Sustainable Development Pathways reflecting different societal perspectives: First results from the SHAPE project [Paper ID 190]**
Sebastian Rauner (Potsdam Institute for Climate Impact Research PIK), Bjoern Soergel (Potsdam Institute for Climate Impact Research PIK), Vassilis Daioglou (Netherlands Environmental Assessment Agency PBL), Isabelle Weindl (Potsdam Institute for Climate Impact Research PIK), Michaja Pehl (Potsdam Institute for Climate Impact Research PIK), Alois Dirnaichner (Potsdam Institute for Climate Impact Research PIK), Robin Hasse (Potsdam Institute for Climate Impact Research PIK), Geanderson Ambrosio (Netherlands Environmental Assessment Agency PBL), Fabio Carrer (Norwegian University of Science and Technology NTNU), Richard Wood (Norwegian University of Science and Technology NTNU), Edgar Hertwich (Norwegian University of Science and Technology NTNU), Alessio Mastrucci (International Institute for Applied Systems Analysis IIASA), Bas Van Ruijven (International Institute for Applied Systems Analysis IIASA), Ines Dombrowsky (German Institute of Development and Sustainability IDOS), Sarah Cornell (Stockholm Resilience Centre, Stockholm University), Ana Paula Aguiar (Stockholm Resilience Centre, Stockholm University), Ariel Hernandez (German Institute of Development and Sustainability IDOS), Gabriela Iacobuta (German Institute of Development and Sustainability IDOS), Merle Remy (Institute for Advanced Sustainability Studies IIASA), Hermann Lotze-Campen (Potsdam Institute for Climate Impact Research PIK), Gunnar Luderer (Potsdam Institute for Climate Impact Research PIK), Detlef van Vuuren (Netherlands Environmental Assessment Agency PBL), Elmar KRIEGLER (Potsdam Institute for Climate Impact Research PIK), Dorothee Keppler (Potsdam Institute for Climate Impact Research PIK)
- 08.20-08.40 **The Climate-Land-Energy-Water nexus implications of Sustainable Development Pathways [Paper ID 42]**
Vassilis DAIOGLOU (PBL Netherlands Environmental Assessment Agency), Geanderson Ambrosio (Copernicus Institute of Sustainable Development), Astrid Bos (PBL Netherlands Environmental Assessment Agency), Jonathan Doelman (PBL Netherlands Environmental Assessment Agency), Elmar Kriegler (Potsdam Institute for Climate Impact Research PIK), Sebastian Rauner (Potsdam Institute for Climate Impact Research PIK), Bjoern Soergel (Potsdam Institute for Climate Impact Research PIK), Detlef van Vuuren (PBL Netherlands Environmental Assessment Agency), Isabelle Wiendl (Potsdam Institute for Climate Impact Research PIK)
- 08.40-09.00 **Transforming both energy and land systems is required to safeguard the Global Commons [Paper ID 1]**
Gabriel ABRAHÃO, Dorothee Keppler, Isabelle Weindl, Jessica Strefler, Bjoern Soergel, Lavinia Baumstark, Christoph Bertram, Michael Crawford, Jan Philipp Dietrich, Alois Dirnaichner, Robin Krekeler, Jens Heinke, Florian Humpenöder, David Klein, Gunnar Luderer, Simón Moreno, Christoph Mueller, Michaja Pehl, Robert Pietzcker, Franziska Piontek, Alexander Popp, Sebastian Rauner, Renato Rodrigues, Elmar Kriegler (PIK)

ROOM 4

Wednesday
30
Nov
09.00-10.00

SUSTAINABLE 2

Chair: Detlef VAN VUUREN (PBL, UU)

- 09.00-09.20 **Paris-compliant sustainable development pathways in the EU: a multi-model study [Paper ID 25]**
Lorenza CAMPAGNOLO (RFF-CMCC European Institute on Economics and the Environment EIEE, Euro-Mediterranean Center on Climate Change CMCC, Ca'Foscari University of Venice), Elisa Delpiazzi (RFF-CMCC European Institute on Economics and the Environment EIEE, Euro-Mediterranean Center on Climate Change CMCC, Ca'Foscari University of Venice), Jorge Moreno (Basque Centre for Climate Change BC3), Dirk-Jan Van

de Ven (Basque Centre for Climate Change BC3), Alessandro Chiodi (E4SMA s.r.l.), Maurizio Gargiulo (E4SMA s.r.l.), Baptiste Boitier (SEURECO), Konstantinos Koasidis (Energy Policy Unit, National Technical University of Athens), Alexandros Nikas (Energy Policy Unit, National Technical University of Athens)

- 09.20-09.40 **Pricing carbon emissions reduces health inequities from air pollution exposure [Paper ID 100]**
Xinyuan HUANG (Penn State University), Vivek Srikrishnan (Cornell University), Jonathan Lamontagne (Tufts University), Klaus Keller (Dartmouth College), Wei Peng (Penn State University)
- 09.40-10.00 **Sustainable pathways for water conservation through smart irrigation and hydropower penetration in the Indus River Basin [Paper ID 102]**
 Ansir Ilyas (Centre for Water Informatics and Technology, NCRA Agricultural Robotics Lab, Lahore University of Management Sciences), Muhammad Awais (International Institute for Applied Systems Analysis – IIASA and Department of Civil Engineering, University of Victoria), Hassan NIAZI (Joint Global Change Research Institute, Pacific Northwest National Laboratory)

ROOM 4

Wednesday
30
 Nov
 10.30-11.30

SUSTAINABLE 3
 Chair: Detlef VAN VUUREN (PBL, UU)

- 10.30-10.50 **Hydrogen in energy transitions: an investigation into food and water considerations [Paper ID 174]**
Patrick O'ROURKE (University of Maryland College Park and Pacific Northwest National Laboratory – Joint Global Change Research Institute), Jay Fuhrman (Pacific Northwest National Laboratory – Joint Global Change Research Institute), Brinda Yarlagadda (University of Maryland College Park and Pacific Northwest National Laboratory – Joint Global Change Research Institute), Haewon McJeon (University of Maryland College Park and Pacific Northwest National Laboratory – Joint Global Change Research Institute), Mel George (University of Maryland College Park), Page Kyle (Pacific Northwest National Laboratory – Joint Global Change Research Institute), Paul Wolfram (Pacific Northwest National Laboratory – Joint Global Change Research Institute), Nazar Kholod (Pacific Northwest National Laboratory – Joint Global Change Research Institute)
- 10.50-11.10 **Climate policy and the SDGs agenda: How does near-term action on SDGs help achieve long-term climate goals? [Paper ID 204]**
Isabela SCHMIDT TAGOMORI (PBL), Mathijs Harmsen (PBL), Jonathan Doelman (PBL), Adriano Vinca (IIASA), Muhammad Awais (IIASA), Shridhar Kulkarni (UU), Edward Byers (IIASA), Keywan Riahi (IIASA), Detlef van Vuuren (PBL)
- 11.10-11.30 **The role of income distribution on future food demand and the land, water, and energy systems [Paper ID 244]**
Stephanie WALDHOFF (Pacific Northwest National Laboratory), Ellie Lochner (Pacific Northwest National Laboratory), Ryna Cui (University of Maryland), Kanishka Narayan (Pacific Northwest National Laboratory), Jon Sampedro (Pacific Northwest National Laboratory)

ROOM 4

Wednesday
30
Nov
11.30-12.30

SUSTAINABLE 4

Chair: Detlef VAN VUUREN (PBL, UU)

- 11.30-11.50 **Global Peak Water: Is Water the New Oil? [Paper ID 169]**
Hassan NIAZI (Joint Global Change Research Institute, Pacific Northwest National Laboratory), Thomas Wild (Joint Global Change Research Institute, Pacific Northwest National Laboratory), Siwa Msangi (US Dept of Agriculture, Economic Research Service), Mohamad Hejazi (King Abdullah Petroleum Studies and Research Center), Neal Graham (Joint Global Change Research Institute, Pacific Northwest National Laboratory), Sean Turner (Pacific Northwest National Laboratory)
- 11.50-12.10 **Drivers of Future Physical Water Scarcity and its Economic Impacts in Latin America and the Caribbean [Paper ID 18]**
Abigail BIRNBAUM (Tufts University), Jonathan Lamontagne (Tufts University), Thomas Wild (University of Maryland and Pacific Northwest National Laboratory), Flannery Dolan (RAND Corporation), Brinda Yarlagadda (University of Maryland)
- 12.10-12.30 **Water and Global Change: An Integrated Assessment Modeling Perspective [Paper ID 252]**
Thomas WILD (Pacific Northwest National Laboratory - Joint Global Change Research Institute), Hassan Niazi (Pacific Northwest National Laboratory - Joint Global Change Research Institute), Siwa Msangi (US Dept of Agriculture, Economic Research Service), Neal Graham (Pacific Northwest National Laboratory - Joint Global Change Research Institute)

ROOM 4

Wednesday
30
Nov
14.00-15.00

TRANSITION 1

Chair: Keywan RIAHI (IIASA)

- 14.00-14.20 **Scenarios taking into account the feasibility concerns raised by high mitigation ambition in countries with low governance capacity [Paper ID 14]**
Christoph BERTRAM (PIK), Elina Brutschin (IIASA), Laurent Drouet (EIEE), Gunnar Luderer (PIK), Bas van Ruijven (IIASA), Keywan Riahi (IIASA)
- 14.20-14.40 **The importance of reducing regional cost of capital for the energy transition: a multi-model analysis [Paper ID 23]**
Matteo CALCATERRA (RFF-CMCC European Institute on Economics and the Environment EIEE), Lara Aleluia Reis (RFF-CMCC European Institute on Economics and the Environment EIEE), Panagiotis Fragkos (E3Modelling), Friedemann H.J. Polzin (Utrecht University School of Economics U.S.E.), Mark Sanders (Utrecht University School of Economics U.S.E.), Tobias Schmidt (Energy and Technology Policy Group - ETH Zurich), Detlef P. van Vuuren (PBL Netherlands Environmental Assessment Agency), Dirk-Jan van de Ven (Basque Centre for Climate Change BC3), Bjarne Steffen (Climate Finance and Policy Group - ETH Zurich), Florian Egli (Energy and Technology Policy Group - ETH Zurich), Shivika Mittal (UCL Institute for Innovation and Public Purpose IIPP), Thibault Briera (CIRED), Johannes Emmerling (RFF-CMCC European Institute on Economics and the Environment - EIEE), Harmen-Sytze de Boer (PBL Netherlands Environmental Assessment Agency), Alexandra Serebriakova (Utrecht University School of Economics U.S.E.), Massimo Tavoni (RFF-CMCC European Institute on Economics and the Environment -EIEE)
- 14.40-15.00 **The Long and Short of Overseas Public Energy Finance Reforms and Global Coal-Exit Feasibility [Paper ID 16]**
Stephen BI (Potsdam Institute for Climate Impact Research), Nico Bauer (Potsdam Institute for Climate

Impact Research), Gregor Semieniuk (University of Massachusetts Amherst), Niccolò Manych (Mercator Research Institute on Global Commons and Climate Change), Jan Steckel (Mercator Research Institute on Global Commons and Climate Change)

ROOM 4	<p style="color: red; margin: 0;">Wednesday</p> <p style="font-size: 24px; margin: 0;">30</p> <p style="font-size: 24px; margin: 0;">Nov</p> <p style="margin: 0;">15.00-16.00</p>	<p style="font-size: 24px; margin: 0;">TRANSITION 2</p> <p style="margin: 0;">Chair: Saritha Sudharma VISHWANATHAN (NIES)</p>
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- 15.00-15.20 **Insights from hindcasting on modeling socio-technical feasibility of EU climate objectives in the power sector [Paper ID 63]**
 Vivien Fisch-Romito, Marc Jaxa-Rozen, Xin WEN, Evelina Trutnevyte (Renewable Energy Systems, Institute for Environmental Sciences ISE, Section of Earth and Environmental Sciences, University of Geneva)
- 15.20-15.40 **Long-term basin-scale hydropower expansion under alternative scenarios in a global multisector model [Paper ID 269]**
Ying ZHANG, Matthew Binsted, Gokul Iyer, Sonny Kim, Tom Wild, Mengqi Zhao (PNNL-JGCRI)
- 15.40-16.00 **Using Granular Start-up Data to Inform Integrated Assessment Modeling of Technology Development [Paper ID 113]**
Kathleen KENNEDY (Center for Global Sustainability at University of Maryland), Morgan Edwards (University of Wisconsin-Madison), Kavita Surana (Center for Global Sustainability at University of Maryland), Zachary Thomas (University of Wisconsin-Madison), Rachel Fedorchak (University of Wisconsin-Madison), Maria Borrero (Center for Global Sustainability at University of Maryland), Leon Clarke (Bezos Earth Fund), Haewon McJeon (Center for Global Sustainability and Joint Global Change Research Institute at University of Maryland), Gregory Nemet (University of Wisconsin-Madison), Ellen Williams (University of Maryland), Nathan Hultman (Center for Global Sustainability at University of Maryland)

ROOM 1	<p style="color: red; margin: 0;">Thursday</p> <p style="font-size: 24px; margin: 0;">1</p> <p style="font-size: 24px; margin: 0;">Dec</p> <p style="margin: 0;">08.00-09.00</p>	<p style="font-size: 24px; margin: 0;">DEMAND/CIRCULAR 1</p> <p style="margin: 0;">Chair: Volker KREY (IIASA)</p>
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- 08.00-08.20 **Economics of sufficient consumption pathways for 1.5C and 2C warming employing post-Keynesian demand-led modelling [Paper ID 118]**
Bence KISS-DOBRONYI (Corvinus University of Budapest, Cambridge Econometrics), Áron Dénes Hartvig (Corvinus University of Budapest, Cambridge Econometrics), István Heilmann (Cambridge Econometrics)
- 08.20-08.40 **(Path)ways to sustainable living: the intent and impact of sustainable lifestyles [Paper ID 232]**
Nicole VAN DEN BERG (Utrecht University), Lauren Thu (OneEarth), Andries Hof (PBL Netherlands Environmental Assessment Agency), Nicole-Anne Boyer (Now Partners), Lewis Akenji (Hot or Cool Institute), Vanessa Timmer (OneEarth), Detlef van Vuuren (PBL Netherlands Environmental Assessment Agency)
- 08.40-09.00 **Sustainable development pathways for buildings energy and material demands [Paper ID 146]**
Alessio MASTRUCCI, Bas van Ruijven (IIASA)

ROOM 1	Thursday 1 Dec 09.00-10.20	DEMAND/CIRCULAR 2 Chair: Bas VAN RUIJVEN (IIASA)
	09.00-09.20	Simultaneous mitigation of climate change and plastic pollution [Paper ID 160] <u>Simón MORENO</u> , Anne Merfort, Gabriel Abrahao, Felix Schreyer, Renato Rodriguez, Gunnar Luderer, Jessica Strefler (PIK)
	09.20-09.40	Policy scenarios for the transition to a more circular economy: a focus on plastics [Paper ID 128] <u>Elisa LANZI</u> (OECD)
	09.40-10.00	Long term projections of the global material metabolism [Paper ID 173] Kyra Orbons (Utrecht University), <u>Vassilis DAIOGLOU</u> (PBL), Sebastiaan Deetman (Leiden University, Utrecht University), Detlef van Vuuren (PBL, Utrecht University)
	10.00-10.20	Circular Economy Transition in Europe Requires Ambitious Policies Beyond Climate Mitigation [Paper ID 33] <u>Maksym CHEPELIEV</u> (Center for Global Trade Analysis, Purdue University), Angel Aguiar (Center for Global Trade Analysis, Purdue University), Thomas Farole (The World Bank), Andrea Liverani (The World Bank), Dominique van der Mensbrugge (Center for Global Trade Analysis, Purdue University)

ROOM 2	Thursday 1 Dec 08.00-09.00	JUST 1 Chair: Massimo TAVONI (RFF-CMCC EIEE and Politecnico di Milano)
	08.00-08.20	Future inequality under different emission pathways: effects of climate change mitigation and impacts [Paper ID 183] <u>Franziska PIONTEK</u> , Nicolas Taconet, Bjoern Soergel (Potsdam Institute for Climate Impact Research)
	08.20-08.40	Cooperative adaptive climate policies to balance economic, temperature and inequality objectives in the presence of deep uncertainty in the RICE50+ IAM [Paper ID 26] <u>Angelo CARLINO</u> (Politecnico di Milano), Paolo Gazzotti (Politecnico di Milano, Euro-Mediterranean Center on Climate Change CMCC), Massimo Tavoni (Politecnico di Milano, Euro-Mediterranean Center on Climate Change CMCC), Andrea Castelletti (Politecnico di Milano, Euro-Mediterranean Center on Climate Change CMCC)
	08.40-09.00	Energy needs for a decent life: what do climate mitigation scenarios imply for energy inequality? [Paper ID 115] <u>Jarmo KIKSTRA</u> (IIASA), Jihoon Min (IIASA), Narasimha Rao (Yale), Alessio Mastrucci (IIASA), Joeri Rogelj (IMPERIAL), Bas Van Ruijven (IIASA), Fabio Sfera (IIASA), Keywan Riahi (IIASA)

ROOM 2

Thursday

1
Dec

09.00-10.20

JUST 2

Chair: Massimo TAVONI (RFF-CMCC EIEE and Politecnico di Milano)

- 09.00-09.20 **Household energy security under stringent climate change mitigation to achieve the long-term temperature goal of the Paris Agreement [Paper ID 273]**
Shiya ZHAO (Department of Environmental Engineering, Kyoto University), Shinichiro Fujimori (Department of Environmental Engineering, Kyoto University, Center for Social and Environmental Systems Research, National Institute for Environmental Studies NIES), International Institute for Applied System Analysis IIASA), Tomoko Hasegawa (Center for Social and Environmental Systems Research, National Institute for Environmental Studies NIES), Department of Civil and Environmental Engineering, Ritsumeikan University), Ken Oshiro (Department of Environmental Engineering, Kyoto University), Katsuya Sasaki (Department of Environmental Engineering, Kyoto University)
- 09.20-09.40 **Assess the Retirement Plan and Financing Needs for an Accelerated and Just Coal Power Phaseout in Indonesia [Paper ID 38]**
Ryna CUI (Center for Global Sustainability, University of Maryland), Fabby Tumiwa (Institute for Essential Services Reform), Alicia Zhao (Center for Global Sustainability, University of Maryland), Deon Arinaldo (Institute for Essential Services Reform), Raden Wiranegara (Institute for Essential Services Reform), Diyang Cui (Center for Global Sustainability, University of Maryland), Camryn Dahl (Center for Global Sustainability, University of Maryland), Lauri Myllyvirta (Centre for Research on Energy and Clean Air), Pamela Simamora (Institute for Essential Services Reform), Claire Squire, Center for Global Sustainability, University of Maryland)
- 09.40-10.20 **Discussion**

ROOM 3

Thursday

1
Dec

08.00-09.00

METHODS 2

Chair: Matthias WEITZEL (European Commission - JRC-Seville)

- 08.00-08.20 **On the consensus of integrated assessment results [Paper ID 47]**
Mark DEKKER (PBL), Maarten van den Berg (PBL), Vassilis Diaoglou (PBL), Rik van Heerden (PBL), Kaj-Ivar van der Wijst (PBL), Detlef van Vuuren (PBL), Andries Hof (PBL)
- 08.20-08.40 **STITCHES: creating new scenarios of climate model output by stitching together pieces of existing simulations [Paper ID 214]**
Abigail SNYDER, Claudia Tebaldi, Kalyn Dorheim (PNNL/JGCRI)
- 08.40-09.00 **pridr: An R package to project, aggregate and validate income distributions at scale [Paper ID 168]**
Kanishka NARAYAN, Brian O'Neill, Stephanie Waldhoff, Claudia Tebaldi (Joint Global Change Research Institute JGCRI, Pacific Northwest National Lab PNNL)

ROOM 3	Thursday 1 Dec 09.00-10.20	METHODS 3 Chair: Detlef VAN VUUREN (PBL, UU)
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- 09.00-09.20 **An open-source package to solve large-scale models [Paper ID 201]**
Anissa SAUMTALLY (OFCE), Paul Malliet (OFCE), Frédéric Reynès (NEO Netherlands Economic Observatory and OFCE), Meriem Hamdi-Cherif (OFCE), Aurelien Saussay (London School of Economics and OFCE)
- 09.20-09.40 **Probabilistic uncertainty forecasting in electricity system models in 31 European countries [Paper ID 250]**
Xin WEN, Marc Jaxa-Rozen, Evelina Trutnevte (Renewable Energy Systems, Institute for Environmental Sciences ISE, Section of Earth and Environmental Sciences, University of Geneva)
- 09.40-10.20 **Discussion**

ROOM 4	Thursday 1 Dec 08.00-09.00	IMPACT 2 Chair: Roberto SCHAEFFER (COPPE)
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- 08.00-08.20 **Utilizing IAMs to Project Future Disparities in Heat Stress [Paper ID 119]**
Angel Hsu (University of North Carolina at Chapel Hill), Wei Peng (Penn State University), Noah KITTNER (University of North Carolina at Chapel Hill), Kaihui Song (University of North Carolina at Chapel Hill)
- 08.20-08.40 **Electricity Consumption for Air-conditioning: a Global Model and Future Scenarios [Paper ID 179]**
Giacomo FALCHETTA (CMCC, Ca' Foscari University of Venice, and IIASA), Filippo Pavanello (University of Bologna, CMCC, Ca' Foscari University of Venice), Enrica De Cian (Ca' Foscari University)
- 08.40-09.00 **Study of Climate Change Impacts on Crop and Industrial Water Demand in Beijing-Tianjin-Hebei Region [Paper ID 275]**
Yating ZHONG (School of Economics and Management, North China Electric Power University), Meijing Chen (School of Water Resources and Environment, China University of Geosciences), Qian Zhou (School of Economics and Management, North China Electric Power University)

ROOM 4	Thursday 1 Dec 09.00-10.20	IMPACT 3 Chair: Roberto SCHAEFFER (COPPE)
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- 09.00-09.20 **Economic impacts of wildfire adaptation: Public Safety Power Shutoffs in California [Paper ID 96]**
Jill HORING (Stanford University), Ian Sue Wing (Boston University)
- 09.20-09.40 **System-level adaptation of agriculture to climate change under different crop models' state-of-the-art simulations [Paper ID 156]**
Edna Johanna MOLINA BACCA (Potsdam Institute for Climate Impact Research, Humboldt-Universität zu Berlin), Miodrag Stevanović (Potsdam Institute for Climate Impact Research), Benjamin Leon Bodirsky

(Potsdam Institute for Climate Impact Research, World Vegetable Center), Kristine Karstens (Potsdam Institute for Climate Impact Research, Humboldt-Universität zu Berlin), David Meng-Chuen Chen (Potsdam Institute for Climate Impact Research, Humboldt-Universität zu Berlin), Debbora Leip (Potsdam Institute for Climate Impact Research), Sara Minoli (Potsdam Institute for Climate Impact Research), Jens Heinke (Potsdam Institute for Climate Impact Research), Christoph Müller (Potsdam Institute for Climate Impact Research), Christian Folberth (International Institute for Applied Systems Analysis), Toshichika Iizumi (Institute for Agro-Environmental Sciences, National Agriculture and Food Research Organization), Jonas Jägermeyr (Potsdam Institute for Climate Impact Research, NASA Goddard Institute for Space Studies, Columbia University, Center for Climate Systems Research), Hermann Lotze-Campen (Potsdam Institute for Climate Impact Research, Humboldt-Universität zu Berlin), Alexander Popp (Potsdam Institute for Climate Impact Research, Humboldt-Universität zu Berlin)

09.40-10.20 **Discussion**

ONLINE Poster Sessions Programme

POSTER
ROOM 1

Tuesday
29
Nov
07:45-08.15

ONLINE POSTER SESSION 1

NATIONAL

Assessing Just Transitions from Coal toward Carbon Neutrality in India [Paper ID 61]

Meredydd EVANS (Pacific Northwest National Laboratory, Joint Global Change Research Institute), Siddarth Durga (Pacific Northwest National Laboratory, Joint Global Change Research Institute), Leeya Pressburger (Pacific Northwest National Laboratory, Joint Global Change Research Institute), Ryna Cui (Center for Global Sustainability, School of Public Policy, University of Maryland) Sha Yu (Pacific Northwest National Laboratory, Joint Global Change Research Institute)

NATIONAL

Scenario analysis of consumption-based emissions – the case of Sweden [Paper ID 161]

Johannes MORFELDT, Jörgen Larsson Daniel J. A. Johansson (Chalmers University of Technology)

NATIONAL

The Impact of a Sustained EU Energy Crisis on German Mitigation Pathways towards Climate Neutrality in 2045 [Paper ID 205]

Gunnar Luderer, Felix SCHREYER (Potsdam Institute of Climate Impact Research)

SECTORAL

Integrated Assessment Modeling of the global transportation sector decarbonization [Paper ID 217]

Simone SPEIZER, Jay Fuhrman, Page Kyle, Haewon McJeon (PNNL/JGCRI)

ELECTRICITY AND HYDROGEN

The Impact of Grid-Scale Electricity Storage in a Long-Run, Multisector Context [Paper ID 17]

Matthew BINSTED, Pralit Patel, Gokul Iyer, Sonny Kim, Yang Ou, Marshall Wise (Joint Global Change Research Institute, Pacific Northwest National Laboratory)

ELECTRICITY AND HYDROGEN

Bidirectional coupling of a long-term integrated assessment model with an hourly power sector model [Paper ID 81]

Chen Chris GONG (Potsdam Institute for Climate Impact Research - PIK), Adrian Odenweller (Potsdam Institute for Climate Impact Research - PIK, Global Energy Systems Analysis, Technische Universität Berlin), Falko Ueckerdt (Potsdam Institute for Climate Impact Research - PIK), Robert Pietzcker (Potsdam Institute for Climate Impact Research - PIK), Wolf-Peter Schill (The German Institute for Economic Research), Martin Kittel (The German Institute for Economic Research), Gunnar Luderer (Potsdam Institute for Climate Impact Research - PIK, Global Energy Systems Analysis, Technische Universität Berlin)

CIRCULAR

MESSAGEix-Materials: Representation of Material Flows in an Integrated Assessment Model [Paper ID 229]
 Gamze UNLU (IIASA), Jihoon Min (IIASA), Florian Maczek (IIASA), Volker Krey (IIASA, NTNU)

TRANSITION

Dealing with normative uncertainty. Making value judgments in DP-IAMs more transparent, plural & democratic [Paper ID 95]
 Simon HOLLNAICHER (Bielefeld University)

ECONOMIC

Development under Spatial Equilibrium for the Great Lakes Region [Paper ID 83]
 Yongyang Cai, Ziqian GONG, Jeff Bielicki, Soomin Chun, Brian Cultice, Elena Irwin (The Ohio State University)

LAND

How do afforestation and BECCS differ in their impacts on the land carbon cycle and surface climate? [Paper ID 150]
 Irina MELNIKOVA (LSCE, IPSL - CEA/ CNRS/ UVSQ, Université Paris-Saclay), Olivier Boucher (IPSL, Sorbonne Université / CNRS), Katsumasa Tanaka (LSCE, IPSL - CEA/ CNRS/ UVSQ, Université Paris-Saclay), Nicolas Vuichard, (LSCE, IPSL - CEA/ CNRS/ UVSQ, Université Paris-Saclay), Philippe Ciais (LSCE, IPSL - CEA/ CNRS/ UVSQ, Université Paris-Saclay)

SSP

Shared socioeconomic pathways and their implications for the future of racial inequality [Paper ID 208]
 Soheil SHAYEGH (CMCC)

STAKEHOLDER

India's Energy System Transformation to Net Zero [Paper ID 155]
 Shivika MITTAL (Grantham Institute for Climate Change and the Environment, Imperial College London), Alexandre C. Köberle (Grantham Institute for Climate Change and the Environment, Imperial College London), P.R. Shukla (Ahmedabad University), Ajay Gambhir (Grantham Institute for Climate Change and the Environment, Imperial College London)

DEEP

International energy trade in a low-carbon world: an opportunity for hydrogen? [Paper ID 53]
 Paul Dowling (Joint Research Centre of the European Commission), Kimon Keramidas (Université Grenoble-Alpes), Burkhard SCHADE (Joint Research Centre of the European Commission)

DEEP

Exploring the role of enhanced weathering under stabilization and overshoot scenarios [Paper ID 75]
 Yann GAUCHER (Laboratoire des Sciences du Climat et de l'Environnement LSCE, IPSL, CEA/CNRS/UVSQ, Université Paris-Saclay), Katsumasa Tanaka (Laboratoire des Sciences du Climat et de l'Environnement LSCE, IPSL, CEA/CNRS/UVSQ, Université Paris-Saclay / Earth System Risk Analysis Section, Earth System Division, National Institute for Environmental Studies NIES), Philippe Ciais (Laboratoire des Sciences du Climat et de l'Environnement LSCE, IPSL,

CEA/CNRS/UVSQ, Université Paris- Saclay), Daniel Goll (Laboratoire des Sciences du Climat et de l'Environnement LSCE, IPSL, CEA/CNRS/UVSQ, Université Paris- Saclay), Daniel Johansson (Chalmers University of Technology)

DEEP

SRM on the Table: The Role of Geoengineering for the Stability and Effectiveness of Climate Coalitions [Paper ID 182]
Piergiuseppe PEZZOLI (EIEE-RFF CMCC), Johannes Emmerling (EIEE-RFF CMCC), Massimo Tavoni (EIEE-RFF CMCC and Politecnico di Milano)

SECTORAL

Passenger transport decarbonisation in emerging economies: policy lessons from modelling long-term deep decarbonisation pathways [Paper ID 19]

Yann BRIAND (IDDRI-Sciences Po), Steve PYE (UCL), Marcio de Almeida D'Agosto (UFRJ), George Vasconcelos Goes (UFRJ), Daniel Neves Schmitz-Gonçalves (UFRJ), Amit Garg (IIMA), Dipti Gupta (IIML), Saritha Sudharmma Vishwanathan (IIMA-NIES), Ucock W.R. Siagan (ITB), Fadiel Ahjum (UCT), Hilton Trollip (UCT)

SECTORAL

What are the main mitigation drivers in the EU industrial sector? [Paper ID 32]

Hsing-Hsuan CHEN (Copernicus Institute of Sustainable Development in Utrecht University), Mark Roelfsema (PBL Netherlands Environmental Assessment Agency/Copernicus Institute of Sustainable Development in Utrecht University), Stratos Mikropoulos, (Copernicus Institute of Sustainable Development in Utrecht University), Harmen Sytze de Boer (PBL Netherlands Environmental Assessment Agency), Mariësse van Sluiseveld (PBL Netherlands Environmental Assessment Agency), Vassilis Daioglou (PBL Netherlands Environmental Assessment Agency), Oreane Edelenbosch (Copernicus Institute of Sustainable Development in Utrecht University), Andries Hof (PBL Netherlands Environmental Assessment Agency), Detlef van Vuuren (PBL Netherlands Environmental Assessment Agency/Copernicus Institute of Sustainable Development in Utrecht University)

METHODS

A Matrix Formula of the Social Cost of Carbon [Paper ID 4]

Paul ALKEMADE (Delft University of Technology)

SUSTAINABLE

The solution space for biodiversity and climate change: An assessment from the IMAGE database [Paper ID 5]

Geanderson AMBRÓSIO (Utrecht University and PBL), Jonathan Doelman (Utrecht University and PBL), Detlef van Vuuren (Utrecht University and PBL)

SUSTAINABLE

Achieving a balance between sustainable development goals and climate impacts across the energy, water, and land nexus [Paper ID 11]

Muhammad AWAIS (International Institute of Applied Systems Analysis / University of Victoria), Adriano Vinca (International Institute of Applied Systems Analysis), Edward Byers (International Institute of Applied Systems Analysis), Isabela Schmidt Tagomori (PBL Netherlands Environmental Agency), Mathjis Harmsen (PBL Netherlands Environmental Agency), Volker Krey (International Institute of Applied Systems Analysis), Keywan Riahi (International Institute of Applied Systems Analysis)

SUSTAINABLE

The global and regional air quality impacts of dietary change [Paper ID 238]

Marco Springmann (Oxford Martin Programme on the Future of Food and Nuffield Department of Population Health, University of Oxford), Rita Van Dingenen (European Commission, Joint Research Centre JRC), Toon VANDYCK (European Commission, Joint Research Centre JRC), Catharina Latka (Institute for Food and Resource Economics, University of Bonn), Peter Witzke (Institute for Food and Resource Economics, University of Bonn), Adrian Leip (European Commission, DG Research and Innovation)

METHODS

An emulator for Integrated Assessment Models (EmIAM v1.0) using marginal abatement cost curves [Paper ID 224]

Weiwei Xiong (School of Economics and Management, China University of Geosciences / Laboratoire des Sciences du Climat et de l'Environnement LSCE, IPSL, CEA/CNRS/UVSQ, Université Paris-Saclay), Katsumasa TANAKA (Laboratoire des Sciences du Climat et de l'Environnement LSCE, IPSL, CEA/CNRS/UVSQ, Université Paris-Saclay, / Earth System Risk Analysis Section, Earth System Division, National Institute for Environmental Studies NIES), Daniel J. A. Johansson (Division of Physical Resource Theory, Department of Space, Earth, and Environment, Chalmers University of Technology), Philippe Ciais (Chalmers University of Technology)

PRESENTATION

A "Scalable World Interactive Model" for exploring pathway options and uncertainties: Update for IAMC 2022, rethinking roles, paradigms, potential [Paper ID 148]

Ben MATTHEWS (independent researcher)

OTHER

A Philosophically Informed Evaluation of IAMs [Paper ID 203]

Felix SCHAUMANN (Universität Hamburg)

POSTER
ROOM 2**Tuesday**
29
Nov
08.15-08:45**ONLINE POSTER SESSION 2****CLIMATE****Climate uncertainty as an integral part of IAMs [Paper ID 213]**

Chris SMITH (University of Leeds / IIASA), Alaa Al Khourdajie (Imperial College London / IIASA), Pu Yang (University College London), Doris Folini (ETH Zurich)

ELECTRICITY AND HYDROGEN**Blue and turquoise hydrogen: bridge options or mirage? [Paper ID 114]**

Kimon KERAMIDAS, Silvana Mima (Université de Grenoble-Alpes)

DEMAND**Air-conditioning adoption and electricity demand: implications of climate change adaptation on power systems resilience [Paper ID 37]**

Francesco COLELLI (Ca' Foscari University of Venice / CMCC), Ian Sue Wing (Boston University), Enrica De Cian (Ca' Foscari University of Venice / CMCC)

DEMAND**Optimisation in consideration of heterogeneous preferences – a new energy demand model for buildings [Paper ID 91]**

Robin HASSE, Robert Pietzcker, Gunnar Luderer (Potsdam Institute for Climate Impact Research - PIK)

DEMAND**Assessment of end-use sector transformations [Paper ID 236]**

Rik VAN HEERDEN (PBL Netherlands Environmental Assessment Agency), Vassilis Daioglou (PBL Netherlands Environmental Assessment Agency / Copernicus Institute for Sustainable Development, Utrecht University), Oreane Edelenbosch (PBL Netherlands Environmental Assessment Agency / Copernicus Institute for Sustainable Development, Utrecht University), Johannes Emmerling (RFF-CMCC European Institute on Economics and the Environment - EIEE, Centro Euro-Mediterraneo sui Cambiamenti Climatici), Thomas Le Gallic (International Research Center On the Environment and Development - CIRED), Johanna Hoppe (Potsdam Institute for Climate Impact Research - PIK), Paul Kishimoto (Energy, Climate, and Environment Program, International Institute for Applied Systems Analysis - IIASA), Florian Leblanc (International Research Center On the Environment and Development - CIRED), Gunnar Luderer (Potsdam Institute for Climate Impact Research - PIK), Alessio Mastrucci (Energy, Climate, and Environment Program, International Institute for Applied Systems Analysis - IIASA), Robert Pietzcker (Potsdam Institute for Climate Impact Research - PIK), Bas van Ruijven (Energy, Climate, and Environment Program, International Institute for Applied Systems Analysis - IIASA), Roberto Schaeffer (Centre for Energy and Environmental Economics – CENERGIA / COPPE, Universidade Federal do Rio de Janeiro - UFRJ), Isabela Tagomori (PBL Netherlands Environmental Assessment Agency), Eveline Vasquez Arroyo (Energy Planning Program - COPPE, Universidade Federal do Rio de Janeiro - UFRJ), Detlef van Vuuren (PBL Netherlands Environmental Assessment Agency / Copernicus Institute for Sustainable Development, Utrecht University)

ECONOMIC

Quantifying the cost savings of global solar photovoltaic supply chains [Paper ID 93]

John Paul Helveston (George Washington University), Gang HE (College of Engineering and Applied Sciences, Stony Brook University), Michael R. Davidson (University of California San Diego)

ECONOMIC

Interaction of structural change and climate change [Paper ID 130]

Marian LEIMBACH, Johannes Koch, Marcos Marcolino (Potsdam Institute for Climate Impact Research - PIK)

ECONOMIC

Heterogeneous Agents and Macroeconomic Transition Risks [Paper ID 193]

Oliver RICHTERS (Potsdam Institute for Climate Impact Research, PIK)

JUST

A Multi-model Assessment of Inequality and Climate Change [Paper ID 60]

Johannes EMMERLING (RFF-CMCC European Institute on Economics and the Environment - EIEE), Pietro Andreoni (RFF-CMCC European Institute on Economics and the Environment - EIEE), Shouro Dasgupta (Euro-Mediterranean Centre on Climate Change - CMCC and University of Venice Ca'Foscari), Toon Van Dyck (JRC Seville), Simon Feindt (Mercator Research Institute on Global Commons and Climate Change - MCC), Panagiotis Fragkos (E3 Modelling - E3M) Carolina Grottera (Universidade Federal Fluminense), Celine Guivarch (Centre International de Recherche sur l'Environnement et le Développement - CIRED), Ulrike Kornek (Kiel University and MCC), Elmar Kriegler (Potsdam Institute for Climate Impact Research - PIK), Daniele Malerba (German Institute of Development and Sustainability - IDOS), Giacomo Marangoni (Delft University), Aurélie Méjean (Centre International de Recherche sur l'Environnement et le Développement - CIRED), Jean-Francois Mercure (The World Bank), Leonidas Paroussos (E3 Modelling - E3M), Franziska Piontek (Potsdam Institute for Climate Impact Research - PIK), Yeliz Simsek (Australian National University - ANU), Bjoern Soergel (Potsdam Institute for Climate Impact Research - PIK), Nicolas Taconet (German Institute of Development and Sustainability - IDOS), Yu Zheng (Centre d'Études Prospectives et d'Informations Internationales - CEPII), Massimo Tavoni (RFF-CMCC European Institute on Economics and the Environment - EIEE, Politecnico di Milano - POLIMI)

JUST

A framework to illustrate justice considerations in climate mitigation scenarios and to guide research [Paper ID 278]

Elina Brutschin (IIASA), Kian Mintz-Woo (University College Cork), Matthew Gidden (IIASA), Roman Hoffmann (IIASA), Jarmo Kikstra (IIASA), Jihoon Min (IIASA), Raya Muttarak (University of Bologna), Shonali Pachauri (IIASA), Omkar Patange (IIASA), Keywan Riahi (IIASA), Thomas Schinko (IIASA), Caroline ZIMM (IIASA)

CLIMATE

Testing GWP* under overshoot scenarios in the carbon budget framework [Paper ID 145]

Matteo MASTROPIERRO (Ca' Foscari University of Venice, / Laboratoire des Sciences du Climat et de l'Environnement - IPSL, CEA/CNRS/UVSQ, Université Paris-Saclay), Katsumasa Tanaka (Laboratoire des Sciences du Climat et de l'Environnement - IPSL, CEA/CNRS/UVSQ, Université Paris-Saclay, National Institute for Environmental Studies - NIES), Irina Melnikova (Laboratoire des Sciences du Climat et de l'Environnement - IPSL, CEA/CNRS/UVSQ, Université Paris-Saclay), Philippe Ciais (Laboratoire des Sciences du Climat et de l'Environnement - IPSL, CEA/CNRS/UVSQ, Université Paris-Saclay)

IMPACTS

Climate-Health-Economics Nexus analysis using Global Climate-Energy-Economic Model [Paper ID 13]
 Maksud BEKCHANOV, CMCC

IMPACTS

Combining future projections of land-use and climate change impacts on biodiversity [Paper ID 88]
 Édouard Davin (Wyss Academy for Nature, Climate and Environmental Physics, Oeschger Centre for Climate Change Research, University of Bern), Markus Fischer (Institute of Plant Sciences, Oeschger Centre, University of Bern), Chantal HARI (Wyss Academy for Nature, Climate and Environmental Physics, Oeschger Centre for Climate Change Research)

IMPACTS

Modelling uncertain economic impacts of climate change under a multi-regional and multi-sectoral bottom-up perspective [Paper ID 139]
 Paola LÓPEZ-MUÑOZ, Laura Bartolomé, Íñigo Capellán-Pérez (Group of Energy, Economy and System Dynamics - University of Valladolid)

IMPACTS

The impact of Climate Change on European Regional Tourism Demand [Paper ID 147]
 Nicoleta ANCA MATEI, David García-León, Juan-Carlos Ciscar, Alessandro Dosio (European Commission, Joint Research Centre)

IMPACTS

The hidden dark side of climate adaptation: inequality in the availability of residential air conditioning within and among U.S. metropolitan areas and implications for vulnerability to extreme heat [Paper ID 194]
 Yasmin ROMITTI (Boston University Earth and Environment), Ian Sue Wing (Boston University Earth and Environment), Keith Spangler (Boston University School of Public Health), Gregory Wellenius (Boston University School of Public Health)

IMPACTS

Increased wheat price spikes and larger economic inequality with 2C global warming [Paper ID 249]
 Tianyi Zhang (Chinese Academy of Sciences), Karin van der Wiel (Royal Netherlands Meteorological Institute), Taoyuan WEI (CICERO Center for International Climate Research), James Screen (University of Exeter), Xu Yue (Nanjing University of Information Science and Technology), Bangyou Zheng (CSIRO Plant Industry, Queensland Bioscience Precinct), Frank Selten (Royal Netherlands Meteorological Institute), Richard Bintanja (Royal Netherlands Meteorological Institute and University of Groningen), Weston Anderson (Columbia University), Russell Blackport (University of Exeter), Solveig Glomsrod (CICERO Center for International Climate Research), Yu Liu (Chinese Academy of Sciences), Xuefeng Cui (Beijing Normal University), Xiaoguang Yang (China Agricultural University)

SSP

SSP Projection of Schooling Flows [Paper ID 104]
Mohammad IRFAN (Frederick S. Pardee Center for International Futures at the University of Denver), Brian O'Neill (Pacific Northwest National Laboratory, Joint Global Change Research Institute at the University of Maryland)

SSP

Can wellbeing be projected using Shared Socioeconomic Pathways? [Paper ID 136]Kedi LIU, Rutger Hoekstra, Ranran Wang (Leiden University)

SSP

Food demand, land use, and nutrient availability [Paper ID 198]Ronald SANDS (Economic Research Service, U.S. Department of Agriculture)

METHODS

Opening the DICE black box: Disentangling the Social Cost of Carbon and the Social Marginal Abatement Cost in a continuous-time DICE-type model [Paper ID 67]Michael FREIBERGER, Michael Kuhn, Stefan Wrzaczek (International Institute for Applied Systems Analysis - IIASA)

METHODS

Emulating the global CO2 emissions behaviour of IAMs + exploring learning rates [Paper ID 107]Stuart JENKINS, Aaron Vitarana, Doyne Farmer, Myles Allen (University of Oxford)

METHODS

From ideal to real: how can we use IAMs to design policy instruments? Insights from modelling myopia in the European electricity sector. [Paper ID 212]Joanna SITARZ, Robert Pietzcker, Gunnar Luderer (Potsdam Institute for Climate Impact Research - PIK)

NATIONAL

A model comparison study on Germany's pathways to climate neutrality in 2045 and implications for energy security [Paper ID 141]Gunnar LUDERER (PIK), Christoph Kost (Fraunhofer ISE), Frederike Bartels(PIK), and the REMIND, REMod, TIMES, FORECAST and DEMO/VECTOR21 modelling teams

SUSTAINABLE

Decarbonization scenarios in the United States: Comparing biofuels growth in two models – GCAM and BSM [Paper ID 10]Laura Vimmerstedt (National Renewable Energy Laboratory), Swaroop ATNOORKAR (National Renewable Energy Laboratory), Emily Newes (National Renewable Energy Laboratory), Steve Peterson (Lexidyne, LLC), Marshall Wise (PNNL/JGCRI), Maria Candelaria Bergero (PNNL/JGCRI), Daniel Inman (National Renewable Energy Laboratory)

NATIONAL

Closing the Investment Gap to Achieve the Paris Agreement Goals [Paper ID 266]Fatih YILMAZ, Fahad Alswaina, Fateh Belaid, Mohamad Hejazi, Mari Luomi, Salahaddine Soummame (King Abdullah Petroleum Studies and Research Center)

POSTER
ROOM 1**Wednesday**
30
Nov
16.30-17.00**ONLINE POSTER SESSION 3**

NATIONAL

Assessments of Japan's transition pathways toward carbon neutrality by using DNE21+ model [Paper ID 2]Keigo AKIMOTO, Fuminori Sano, Miyuki Nagashima

(Research Institute of Innovative Technology for the Earth - RITE)

NATIONAL

Fair guidance in ratcheting up the national net-zero emissions ambitions [Paper ID 131]Mingyu LI (School of Environment, Tsinghua University), Xinzhu Zheng (School of Economics and Management, China University of Petroleum), Can Wang (School of Environment, Tsinghua University)

NATIONAL

Analysis of the quality of wind energy resources in Japan with gridded data [Paper ID 210]Diego SILVA HERRAN (NIES)

DEEP

Revisiting the potential of bioenergy with carbon capture and storage in China [Paper ID 50]Xu DENG, (Institute of Energy, Environment and Economy, Tsinghua University), Fei Teng (Institute of Energy, Environment and Economy, Tsinghua University), Jingli Fan (Center for Sustainable Development and Energy Policy Research - SDEP, School of Energy and Mining Engineering, China University of Mining Technology - CUMTB), Xian Zhang (The Administrative Centre for China's Agenda 21 - ACCA21, Ministry of Science and Technology - MOST)

DEEP

Geological Carbon Capture and Storage (CCS) Development in Indonesia: Status, Regulatory Framework, and Key Stakeholders [Paper ID 187]Nadiya PRANINDITA, Muhammad Ichsan Saif, Andreas Dwi Putra, Tifany Khalisa Rinaldy (Resilience Development Initiative)

DEEP

Regional and temporal disparities in cost-effective climate mitigation strategies: China's distinct roles [Paper ID 262]Weiwei XIONG (School of Economics and Management, China University of Geosciences / Laboratoire des Sciences du Climat et de l'Environnement - IPSL, CEA/CNRS/UVSQ, Université Paris-Saclay), Katsumasa Tanaka (Laboratoire des Sciences du Climat et de l'Environnement - IPSL, CEA/CNRS/UVSQ, Université Paris-Saclay, National Institute for Environmental Studies - NIES), Philippe Ciais (Laboratoire des Sciences du Climat et de l'Environnement - IPSL, CEA/CNRS/UVSQ, Université Paris-Saclay)

SECTORAL

Mitigation opportunities at Brazilian refining sector to meet IAM's deep decarbonization scenario [Paper ID 28]
 Aline CARVALHO, Clarissa Fonte, Alexandre Szklo, Pedro Rochedo (PPE/COPPE/UFRJ)

SECTORAL

Tracking Zero-Carbon Electricity Pathways for a Renewable Energy dominant System – Model-based Scenarios and Techno-Economic Feasibilities [Paper ID 43]

Samridh SHARMA (Indian Institute of Science) Abhishek Das (Indian Institute of Science), Varun Jyothiprakash (Indian Institute of Science), Oleg Lugovoy (Environment al Defense Fund), Balachandra Patil (Indian Institute of Science)

NON-STATE

Sectoral downscaling of an IAM for building a state decarbonization plan: the case of Pernambuco, Brazil [Paper ID 40]

Fábio DA SILVA, (CENERGIA/PPE/COPPE/UFRJ), Aline Carvalho (CENERGIA/PPE/COPPE/UFRJ), Amanda Vinhoza (CENERGIA/PPE/COPPE/UFRJ), Ana Carolina Fiorini (CENERGIA/PPE/COPPE/UFRJ), Camila Callegari (CENERGIA/PPE/COPPE/UFRJ), Gerd Angelkorte (CENERGIA/PPE/COPPE/UFRJ), Pedro Rampini (CENERGIA/PPE/COPPE/UFRJ), Taísa Morais (CENERGIA/PPE/COPPE/UFRJ), Mariana Império (CENERGIA/PPE/COPPE/UFRJ), Eveline Vasquez-Arroyo (CENERGIA/PPE/COPPE/UFRJ), Eduardo Haddad (University of São Paulo), Edson Domingues (Núcleo de Estudos em Modelagem Econômica e Ambiental Aplicada - CEDEPLAR/UFGM), Joana Portugal-Pereira (CENERGIA/PPE/COPPE/UFRJ), Pedro Rochedo (CENERGIA/PPE/COPPE/UFRJ), André Lucena (CENERGIA/PPE/COPPE/UFRJ), Alexandre Szklo (CENERGIA/PPE/COPPE/UFRJ), Roberto Schaeffer (CENERGIA/PPE/COPPE/UFRJ)

NON-STATE

Modelling subnational renewable energy transition pathways: An application of IDEEA model for the state of West Bengal, India [Paper ID 166]

Sourish CHATTERJEE (Jadavpur University), Arijit Mukherjee (Jadavpur University), Shreya Some (Asian Institute of Technology), Oleg Lugovoy (Environmental Defense Fund), Joyashree Roy (Asian Institute of Technology)

NON-STATE

Exploring pathways to achieve net-zero for the energy sector at the sub-national level : Case study in Jeju island, South Korea [Paper ID 34]

Yohan CHOI, Chan Park (University of Seoul)

JUST

Brazil's emission pathways under different effort-sharing approaches in a 1.5°C warmer world [Paper ID 54]

Rebecca DRAEGER, Bruno Cunha, Pedro Rochedo, Alexandre Szklo, Roberto Schaeffer (Programa de Planejamento Energético - PPE/COPPE/UFRJ)

JUST

Modelling the food system in China with heterogeneous households [Paper ID 134]

Jing-Yu LIU, Yizhi Deng, Qishi Zhang, Lv Jian, Xiaomuzi Liu (Shanghai Jiao Tong University)

SUSTAINABLE

Taking into account affordable and healthy diets: Implications for sustainable development [Paper ID 22]

Xiaoxi Wang (China Academy for Rural Development and Department of Agricultural Economics and Management, Zhejiang University, Potsdam Institute for Climate Impact Research), Hao CAI (China Academy for Rural Development and Department of Agricultural Economics and Management, Zhejiang University), Jiaqi Xuan (China Academy for Rural Development and Department of Agricultural Economics and Management, Zhejiang University), Wencong Lu (China Academy for Rural Development and Department of Agricultural Economics and Management, Zhejiang University), Hermann Lotze-Campen (Potsdam Institute for Climate Impact Research, China Academy for Rural Development and Department of Agricultural Economics and Management, Zhejiang University)

SUSTAINABLE

Taking into account total factor productivity and trade: Contributions to resources and environment [Paper ID 56]

Xiaoxi Wang, Ruiying DU, Bin Lin (Zhejiang University)

SUSTAINABLE

Alignment of energy transition and water resources under the Carbon Neutrality target in China [Paper ID 92]

Chenmin HE (Zhejiang Carbon neutral Innovation Institute, Zhejiang University of Technology), Kejun Jiang (Energy Research Institute National Development and Reform Commission), Pianpian Xiang (Faculty of Environment and Life, Beijing University of Technology), Yifei Zhang (Zhejiang Carbon neutral Innovation Institute, Zhejiang University of Technology)

DEEP

SuCCESs - An open-source IAM for Energy-Land-Material-Climate Scenarios [Paper ID 68]

Nadine-Cyra FREISTETTER, Tommi Ekholm (Finnish Meteorological Institute)

DEMAND

Modelling energy demand, energy efficiency improvements and lifestyle change for South Asian countries: A topic analysis [Paper ID 215]

Shreya SOME (Asian Institute of Technology), Nandini Das (Climate Analytics), Muhammad Huzaifa Butt (Asian Institute of Technology), Joyashree Roy (Asian Institute of Technology)

ECONOMIC

Damage function uncertainty drives the upward revision of the social cost of methane and nitrous oxide [Paper ID 247]

Tianpeng WANG, Fei Teng (Institute of Energy, Environment and Economy, Tsinghua University)

JUST

Household energy burdens in net zero emission pathways [Paper ID 78]

Mel GEORGE, (University of Maryland), Anand Pathwardhan (University of Maryland), Nathan Hultman (University of Maryland), Leon Clarke (University of Maryland), Haewon McJeon (Pacific Northwest National Lab), Narasimha Rao (International Institute for Applied Systems Analysis - IIASA), Shonali Pachauri (International Institute for Applied Systems Analysis - IIASA), Jihoon Min (International Institute for Applied Systems Analysis - IIASA)

LAND

The influence of land suitability and land protection on projected land use and land cover [Paper ID 51]

Alan DI VITTORIO (Lawrence Berkeley National Laboratory), Kanishka Narayan (Pacific Northwest National Laboratory), Pralit Patel (Pacific Northwest National Laboratory), Chris Vernon (Pacific Northwest National Laboratory)

DEEP

The path to 1.5 °C requires ratcheting of climate pledges [Paper ID 105]

Gokul IYER, (Joint Global Change Research Institute, Pacific Northwest National Laboratory and University of Maryland), Yang Ou (Joint Global Change Research Institute, Pacific Northwest National Laboratory and University of Maryland), Nathan Hultman (Center for Global Sustainability, School of Public Policy, University of Maryland), James Edmonds (Joint Global Change Research Institute, Pacific Northwest National Laboratory and University of Maryland), Allen Fawcett (U.S. Environmental Protection Agency), James McFarland (U.S. Environmental Protection Agency), Stephanie Waldhoff (Joint Global Change Research Institute, Pacific Northwest National Laboratory and University of Maryland), Haewon McJeon (Joint Global Change Research Institute, Pacific Northwest National Laboratory and University of Maryland)

SECTORAL

Modeling the future prospects for Arctic shipping under global change [Paper ID 165]

Siwa MSANGI (US Dept of Agriculture, Economic Research Service), Ying Zhang (PNNL-JGCRI), Stephanie Waldhoff (PNNL-JGCRI), Jae Edmonds (PNNL-JGCRI)

POSTER
ROOM 2

Wednesday

30
Nov

17.00-17.30

ONLINE POSTER SESSION 4

NATIONAL

Long-Term Decarbonization Trajectories in Ecuador [Paper ID 216]

Rafael SORIA (Department of Mechanical Engineering, Universidad San Francisco de Quito), Daniel Villamar (Université de Perpignan), Pedro Rochedo (Universidade Federal Do Rio de Janeiro)

NATIONAL

A multi-model analysis of Japan's net zero target: residual emissions and the role of carbon dioxide removal [Paper ID 221]

Masahiro SUGIYAMA, (The University of Tokyo), Shinichiro Fujimori (Kyoto University, NIES and IIASA), Kenichi Wada (Research Institute of Innovative Technology for the Earth), Etsushi Kato (Institute of Applied Energy), Ryoichi Komiyama (The University of Tokyo), Yuhji Matsuo (Ritsumeikan Asia Pacific University and Institute of Energy Economics), Osamu Nishiura (Kyoto University), Ken Oshiro (Kyoto University), Takashi Otsuki (Yokohama National University and Institute of Energy Economics)

SECTORAL

Integrated scenarios for designing carbon-neutral transport pathways in China [Paper ID 268]

Runsen ZHANG (Hiroshima University), Tatsuya Hanaoka (National Institute for Environmental Studies)

SECTORAL

Decarbonizing On-Road Medium and Heavy-Duty Vehicles [Paper ID 129]

Catherine LEDNA, Matteo Muratori, Arthur Yip, Paige Jadun, Christopher Hoehne (National Renewable Energy Laboratory)

SECTORAL

Study on carbon neutrality pathway for China's transportation department [Paper ID 110]

Lu-yu JIA, Ke Wang (School of Environment and Natural Resources, Renmin University of China)

SECTORAL

Techno-economic assessment of hydrogen toward carbon neutrality in China's industry sector [Paper ID 135]

Ke Wang (Renmin University of China), Fangming LIU (Renmin University of China), Junling Liu (Harbin Institute of Technology)

SECTORAL

Assessing land impacts of biomass co-processing in Brazilian refineries [Paper ID 140]

Letícia, G. LORENTZ (Energy Planning Program, Graduate School of Engineering, UFRJ), Isabela, S. Tagomori (PBL Netherlands Environmental Assessment Agency), Pedro, R. R. Rochedo (Energy Planning Program, Graduate School of Engineering, UFRJ)

TRANSITION

China's Carbon Neutrality Pathways and the Economic and Technological Implications [Paper ID 132]

Hongbo Duan (University of Chinese Academy of Sciences), Yu Liu (Chinese Academy of Sciences), Sheng Zhou (Tsinghua University), [Zhuoran LI](#) (Environmental Defense Fund Beijing Representative Office)

ELECTRICITY AND HYDROGEN

The evaluation on LCOH of conventional technology, energy storage coupled solar PV electrolysis, and HTRG in China [Paper ID 260]

[Pianpian XIANG](#) (Beijing University of Technology), Kejun Jiang (Energy Research Institute)

OTHER

Assessing the impacts of an emissions budget policy in the water-energy-land nexus under water scarcity scenarios [Paper ID 133]

[Francisca LICANDEO](#), Francisco Flores, Felipe Feijoo (Pontificia Universidad Católica de Valparaíso)

DEMAND

Microeconomic modeling to assess the impacts of socioeconomic inequality and climate change on household electricity demand in Brazil [Paper ID 15]

Talita Cruz, (PPE/COPPE/UFRJ), [Paula BEZERRA](#) (PPE/COPPE/UFRJ), Roberto Schaeffer (PPE/COPPE/UFRJ), André F.P. Lucena (PPE/COPPE/UFRJ), Enrica De Cian (CMCC)

DEMAND

Incorporating micro survey data into projection of long-term household consumption pattern in China [Paper ID 261]

[Jun XIE](#), Fei Teng (Institute of Energy, Environment and Economy, Tsinghua University)

METHODS

Comparison of global air pollution impacts across horizontal resolutions [Paper ID 106]

[Thanapat JANSAKOO](#), (Kyoto University), Ryouichi Watanabe (Japan Weather Association), Akio Uetani (Kyoto University), Satoshi Sekizawa (Kyoto University), Shinichiro Fujimori (Kyoto University), Tomoko Hasegawa (Ritsumeikan University), Ken Oshiro (Kyoto University)

METHODS

High resolution data-driven approach for analyzing the environmental impact of diets and sociocultural dietary trends: A case study on milk consumption trends in Japan [Paper ID 218]

[Helen STEWART](#), Aya Suzuki, Takashi Furutani, Toru Nakamura, Masaki Hisada (NTT Space Environment and Energy Laboratories)

STAKEHOLDER

Using the BLUES National IAM in the New Economy for the Amazon project [Paper ID 172]

Mariana Império, [Ana Carolina OLIVEIRA FIORINI](#), Gerd Angelkorte, Luiz Bernardo Baptista, Alexandre Szklo, André F. P. Lucena, Joana Portugal-Pereira, Pedro R. R. Rochedo, Roberto Schaeffer (PPE/COPPE/UFRJ)

SUSTAINABLE

Water Demand for Power Generation in Beijing-Tianjin-Hebei under the Carbon Peaking and Carbon Neutrality Goals [Paper ID 181]

Ying PENG, Qian Zhou (School of Economics and Management, North China Electric Power University)

SUSTAINABLE

Potential environmental and nutritional benefits of replacing ruminant meat with forage fish [Paper ID 259]

Shujuan XIA (National Institute for Environmental Studies), Jun'ya Takakura (National Institute for Environmental Studies), Wenchao Wu (Japan International Research Center for Agricultural Sciences), Julia L. Blanchard (University of Tasmania), Ryan F. Heneghan (Queensland University of Technology), Tomoko Hasegawa (Ritsumeikan University), Shinichiro Fujimori (Kyoto University), Kiyoshi Takahashi (National Institute for Environmental Studies)

SUSTAINABLE

The supply risks from critical metals associated with clean energy transitions in China: A comparative analysis of thin-film photovoltaics [Paper ID 270]

Yuning ZHANG, Yanhua Wang, Ke Wang (Renmin University of China)

LAND

Carbon Sequestration Potential of Afforestation ensuring Ecosystem Conservation and Food Security [Paper ID 90]

Tomoko HASEGAWA (Ritsumeikan University, National Institute for Environmental Studies), Shinichiro Fujimori (Kyoto University), Akihiko Ito (National Institute for Environmental Studies), Kiyoshi Takahashi (National Institute for Environmental Studies)

LAND

Global Land-use and Sustainability Implications of Bioenergy Supply under China's 2060 Carbon Neutrality Target [Paper ID 258]

Yazhen WU (Peking University), Andre Deppermann (International Institute for Applied Systems Analysis - IIASA), Petr Havlík (International Institute for Applied Systems Analysis - IIASA), Stefan Frank (International Institute for Applied Systems Analysis - IIASA), Ming Ren (Peking University), Hao Zhao (Chinese Academy of Sciences), Lin Ma (Chinese Academy of Sciences), Qi Chen (Peking University), Hancheng Dai (Peking University)

ECONOMIC

Credit Default Risks of Coal Power Low-carbon Transition in China: A plant-level assessment by KMV model [Paper ID 248]

Yanhua Wang, Yuning Zhang, Tiantian WANG, Ke Wang (Renmin University of China)

NATIONAL

The Energy System Transformation Needed to Achieve the U.S. Long-Term Strategy [Paper ID 97]

Russell HOROWITZ (PNNL-JGCRI), Matthew Binsted (PNNL-JGCRI), Haewon McJeon (PNNL-JGCRI/CGS)

IN-PERSON Poster Sessions Programme

POSTER ROOM	Tuesday 29 Nov 16.00-16.30	IN-PERSON POSTER SESSION 1
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NATIONAL	<p>The Energy System Transformation Needed to Achieve the U.S. Long-Term Strategy [Paper ID 97] <u>Russell HOROWITZ</u> (PNNL-JGCRI), Matthew Binsted (PNNL-JGCRI), Haewon McJeon (PNNL-JGCRI/CGS)</p>
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NATIONAL	<p>Long-term decarbonization pathway for Saudi Arabia to reach net-zero CO2emissions by 2060 [Paper ID 112] <u>Puneet KAMBOJ</u> (King Abdullah Petroleum Studies and Research Center - KAPSARC), Mohamad Hejazi (King Abdullah Petroleum Studies and Research Center KAPSARC), Fahad Alswaina (King Abdullah Petroleum Studies and Research Center - KAPSARC), Page Kyle (Pacific Northwest National Laboratory - PNNL), Gokul Iyer (Pacific Northwest National Laboratory - PNNL), Haewon McJeon (Pacific Northwest National Laboratory - PNNL)</p>
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NATIONAL	<p>State-level energy-water-land implications of the US net-zero goal [Paper ID 177] <u>Yang OU</u> (Joint Global Change Research Institute, Pacific Northwest National Laboratory), Gokul Iyer (Joint Global Change Research Institute, Pacific Northwest National Laboratory), Haewon McJeon (Joint Global Change Research Institute, Pacific Northwest National Laboratory), Ryna Cui (Center for Global Sustainability, School of Public Policy, University of Maryland), Alicia Zhao (Center for Global Sustainability, School of Public Policy, University of Maryland), Kowan O'Keefe (Center for Global Sustainability, School of Public Policy, University of Maryland)</p>
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NATIONAL	<p>The energy-water-land nexus challenges of deep decarbonization in Saudi Arabia [Paper ID 199] <u>Silvia Regina SANTOS DA SILVA</u> (College of Science, George Mason University), Mohamad Hejazi (King Abdullah Petroleum Studies and Research Center), Fernando Miralles-Wilhelm (College of Science, George Mason University), Page Kyle (Pacific Northwest National Laboratory)</p>
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DEEP	<p>Ocean Alkalinity Enhancement (OAE): The potential in climate change mitigation [Paper ID 121] <u>Katarzyna KOWALCZYK</u>, Jessica Strefler, Elmar Kriegler, Gunnar Luderer, (Potsdam Institute for Climate Impact Research)</p>
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DEEP	<p>An assessment of direct air capture to meet the long-term climate target of the Paris Agreement using a computable general equilibrium model [Paper ID 170] <u>Osamu NISHIURA</u>, Shinichiro Fujimori, Ken Oshiro (Kyoto University)</p>
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SECTORAL

An Integrated Assessment of Leading Pathways Toward A Decarbonized Petrochemical Sector [Paper ID 70]

Wade FRITZEEN (UVA ESE), Andrés Clarens(UVA ESE), Jay Fuhrman (PNNL-JGCRI), Lisa Colosi-Peterson (UVA ESE), Haewon McJeon (PNNL-JGCRI), William Shobe (UVA Batten), Scott Doney (UVA ESE), Sha Yu (PNNL JGCRI)

DEMAND

Residential energy demand, emissions, and expenditures at region and income-decile level for alternative SSP scenarios [Paper ID 197]

Jon SAMPEDRO (Pacific Northwest National Laboratory), Stephanie Waldhoff (Pacific Northwest National Laboratory), Jae Edmonds (Pacific Northwest National Laboratory), Gokul Iyer (Pacific Northwest National Laboratory), Siwa Msangi (US Dept of Agriculture, Economic Research Service), Kanishka Narayan (Pacific Northwest National Laboratory), Pralit Patel (Pacific Northwest National Laboratory), Marshall Wise (Pacific Northwest National Laboratory)

DEMAND

Cutting Russia's Fossil Fuel Exports: Short-Term Economic Pain for Long-Term Environmental Gain [Paper ID 233]

Maksym Chepeliev, Thomas Hertel, Dominique VAN DER MENSBRUGGHE (Purdue University)

NON-STATE

Pathways to Net-Zero Emissions and Carbon Removal at a State Scale [Paper ID 36]

Chloé Fauvel (UVA ESE), Jay Fuhrman (PNNL JGCRI), Lisa Colosi-Peterson (UVA ESE), Haewon McJeon (PNNL JGCRI), William Shobe (UVA Batten), Scott Doney (UVA ESE), Andres CLARENS (UVA ESE)

NON-STATE

Understanding Subnational Net-Zero Pathways using GCAM-China [Paper ID 154]

Sha Yu (Joint Global Change Research Institute, Pacific Northwest National Laboratory, Center for Global Sustainability, School of Public Policy, University of Maryland), Jacqueline Adams (Center for Global Sustainability, School of Public Policy, University of Maryland), Jenna Behrendt (Center for Global Sustainability, School of Public Policy, University of Maryland), Andy MILLER (Center for Global Sustainability, School of Public Policy, University of Maryland), Jiawei Song (Center for Global Sustainability, School of Public Policy, University of Maryland), Qiang Zhang (Tsinghua University), Yang Liu (Tsinghua University), Jing Cheng (Tsinghua University), Dan Tong (Tsinghua University)

LAND

Uncertain spatio-temporal pattern of future land use and land cover change and its impacts on terrestrial carbon cycle over the Arctic–Boreal region of North America [Paper ID 143]

Meng LUO, Min Chen (University of Wisconsin-Madison)

LAND

The influence of land suitability and land protection on projected land use and land cover [Paper ID 51]

Alan DI VITTORIO (Lawrence Berkeley National Laboratory), Kanishka Narayan (Pacific Northwest National Laboratory), Pralit Patel (Pacific Northwest National Laboratory), Chris Vernon (Pacific Northwest National Laboratory)

IMPACTS

Climate change impact on fire carbon emissions and factors contributing to future change uncertainty [Paper ID 178]
Chaeyeon PARK (National Institute for Environmental Studies), Kiyoshi Takahashi (National Institute for Environmental Studies), Jun'ya Takakura (National Institute for Environmental Studies), Fang Li (Chinese Academy of Sciences), Shinichiro Fujimori (Kyoto University), Tomoko Hasegawa (Ritsumeikan University), Akihiko Ito (National Institute for Environmental Studies), Dongkun Lee (Seoul National University)

DEMAND

Modelling energy demand, energy efficiency improvements and lifestyle change for South Asian countries: A topic analysis [Paper ID 215]
Shreya SOME (Asian Institute of Technology), Nandini Das (Climate Analytics), Muhammad Huzaifa Butt (Asian Institute of Technology), Joyashree Roy (Asian Institute of Technology)

CIRCULAR

MESSAGEix-Materials: Representation of Material Flows in an Integrated Assessment Model [Paper ID 229]
 Gamze Unlu (IIASA), Jihoon Min (IIASA), Florian Maczek (IIASA), Volker KREY (IIASA, NTNU)

NON-STATE

Exploring pathways to achieve net-zero for the energy sector at the sub-national level : Case study in Jeju island, South Korea [Paper ID 34]
Yohan CHOI, Chan Park (University of Seoul)

TRANSITION

Two guiding principles for handling normative assumptions in DP-IAMs [Paper ID 95]
Simon HOLLNAICHER (Bielefeld University)

TRANSITION

China's Carbon Neutrality Pathways and the Economic and Technological Implications [Paper ID 132]
 Hongbo Duan (University of Chinese Academy of Sciences), Yu Liu (Chinese Academy of Sciences), Sheng Zhou (Tsinghua University), Zhuoran LI (Environmental Defense Fund Beijing Representative Office)

ECONOMIC

Using a Dynamic Regional Integrated Assessment Model to Assess the Effects of Environmental Policies on the Great Lakes Region [Paper ID 83]
 Yongyang Cai, Ziqian GONG, Jeff Bielicki, Soomin Chun, Brian Cultice, Elena Irwin (The Ohio State University)

JUST

Household energy burdens in net zero emission pathways [Paper ID 78]
Mel GEORGE (University of Maryland), Anand Pathwardhan (University of Maryland), Nathan Hultman (University of Maryland), Leon Clarke (University of Maryland), Haewon McJeon (Pacific Northwest National Lab), Narasimha Rao (International Institute for Applied Systems Analysis - IIASA), Shonali Pachauri (International Institute for Applied Systems Analysis - IIASA), Jihoon Min (International Institute for Applied Systems Analysis - IIASA)

CLIMATE

Climate uncertainty as an integral part of IAMs [Paper ID 213]

Chris SMITH (University of Leeds/IIASA), Alaa Al Khourdajie (Imperial College London/IIASA), Pu Yang (University College London), Doris Folini (ETH Zurich)

METHODS

A Matrix Formula of the Social Cost of Carbon [Paper ID 4]

Paul Alkemade (Delft University of Technology)

POSTER ROOM

Tuesday
29
Nov
16.30-17.00

IN-PERSON POSTER SESSION 2

ECONOMIC

Resilience Benefits of Replacing Diesel Backup Generators with PV-Plus-Storage Microgrids for California Public Buildings [Paper ID 101]

Sunjoon HWANG (Gillings School of Global Public Health, University of North Carolina at Chapel Hill), Sopitsuda Tongsovit (Independent Researcher), Noah Kittner (Gillings School of Global Public Health, University of North Carolina at Chapel Hill)

JUST

Distributional implications of climate impacts on energy demand in emerging economies: the case of India [Paper ID 24]

Lorenza CAMPAGNOLO, Enrica De Cian (Ca' Foscari University of Venice and CMCC)

JUST

Addressing household energy security within an integrated assessment modeling framework [Paper ID 164]

Siwa MSANGI (US Dept of Agriculture, Economic Research Service), Ying Zhang (PNNL-JGCRI), Stephanie Waldhoff (PNNL-JGCRI)

CLIMATE

New features, broader accessibility, and improved performance of Hector v3 a simple carbon/climate model [Paper ID 52]

Kalyn DORHEIM, Ben Bond-Lamberty (PNNL)

CLIMATE

Terrestrial Earth System Feedbacks in GCAM [Paper ID 256]

Dawn WOODARD, Abigail Snyder, Stephanie Waldhoff, Pralit Patel, Ben Bond-Lamberty, Kanishka Narayan (Joint Global Change Research Institute)

TRANSITION

Energy Jobs in Europe towards Net Zero emissions [Paper ID 55]

Johannes Emmerling (RFF-CMCC European Institute on Economics and the Environment - EIEE), Laurent DROUET (RFF-CMCC European Institute on Economics and the Environment - EIEE), Sandeep Pai (University of British Columbia), Hisham Zerriffi (University of British Columbia), Jessica Jewell (Chalmers University)

TRANSITION

Incorporating Political Economy Insights into Integrated Assessment Models [Paper ID 180]

Wei PENG (Penn State University), Gokul Iyer (PNNL), David Victor (UC San Diego)

LAND

Effect of latest spatially explicit terrestrial carbon densities on land use change pathways under climate forcing scenarios: An analysis using GCAM [Paper ID 167]

Kanishka NARAYAN, (Joint Global Change Research Institute - JGCRI, Pacific Northwest National Lab -PNNL), Alan Di Vittorio (Lawrence Berkely National Lab -LBNL), Evan Margiotta (Joint Global Change Research Institute - JGCRI, Pacific Northwest National Lab - PNNL), Marshall Wise (Joint Global Change Research Institute - JGCRI, Pacific Northwest National Lab -PNNL), Pralit Patel (Joint Global Change Research Institute - JGCRI, Pacific Northwest National Lab -PNNL), Abigail, Snyder (Joint Global Change Research Institute - JGCRI, Pacific Northwest National Lab -PNNL)

LAND

Uncertainty of biodiversity impacts based on ISIMIP land-use change projection ensemble [Paper ID 253]

Michael WOEGERER (IIASA), Tamas Krisztin (IIASA), Jonathan Doelman (PBL), Edna Molina Bacca (PIK), Miodrag Stevanovic (PIK), Esther Boere (IIASA), Stefan Frank (IIASA), Petr Havlik (IIASA), Elke Stehfest (PBL), David Leclere (IIASA), Martin Jung (IIASA), Piero Visconti (IIASA)

LAND

A novel land-use model for IAMs for evaluating the role of land-based mitigation [Paper ID 59]

Tommi EKHOLM, Aapo Rautiainen, Laura Thölix (Finnish Meteorological Institute)

SUSTAINABLE

Decarbonization scenarios in the United States: Comparing biofuels growth in two models – GCAM and BSM [Paper ID 10]

Laura Vimmerstedt (National Renewable Energy Laboratory), Swaroop ATNOORKAR (National Renewable Energy Laboratory), Emily Newes (National Renewable Energy Laboratory), Steve Peterson (Lexidyne, LLC), Marshall Wise (Pacific Northwest National Laboratory, Joint Global Change Research Institute at the University of Maryland), Maria Candelaria Bergero (Pacific Northwest National Laboratory, Joint Global Change Research Institute at the University of Maryland), Daniel Inman (National Renewable Energy Laboratory)

SUSTAINABLE

Exploring environmental implications of renewables in sustainable global energy development [Paper ID 35]

AFM Kamal CHOWDHURY (Earth System Science Interdisciplinary Center - ESSIC, University of Maryland), Thomas

B. Wild (Joint Global Change Research Institute, Pacific Northwest National Lab), Ying Zhang (Joint Global Change Research Institute, Pacific Northwest National Lab), Mengqi Zhao (Joint Global Change Research Institute, Pacific Northwest National Lab), Matthew Binsted (Joint Global Change Research Institute, Pacific Northwest National Lab), Jonathan Lamontagne (School of Civil and Environmental Engineering, Tufts University)

SUSTAINABLE

The Future Global Water Savings Potential of Agricultural Trade Integration [Paper ID 84]

Neal GRAHAM (Joint Global Change Research Institute), Gokul Iyer (Joint Global Change Research Institute), Thomas Wild (Joint Global Change Research Institute), Flannery Dolan (Tufts University), Jonathan Lamontagne (Tufts University)

SUSTAINABLE

New narratives for sustainable development [Paper ID 122]

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Representing Reservoir Storage in an Integrated Model of Global Energy-Water-Land Dynamics [Paper ID 272]

Mengqi ZHAO (Pacific Northwest National Laboratory), Thomas Wild (Joint Global Change Research Institute at Pacific Northwest National Laboratory), Son Kim (Joint Global Change Research Institute at Pacific Northwest National Laboratory), Neal Graham (Joint Global Change Research Institute at Pacific Northwest National Laboratory), AFM Kamal Chowdhury (University of Maryland)

SSP

Projecting State Level Income Distributions by SSP Scenarios for the US [Paper ID 29]

Kelly CASPER, Kanishka Narayan, Brian O'Neill, Stephanie Waldhoff (Joint Global Change Research Institute, Pacific Northwest National Lab)

NATIONAL

Assessing Just Transitions from Coal toward Carbon Neutrality in India [Paper ID 61]

Meredydd EVANS (Pacific Northwest National Laboratory, Joint Global Change Research Institute), Siddarth Durga (Pacific Northwest National Laboratory, Joint Global Change Research Institute), Leeya Pressburger (Pacific Northwest National Laboratory, Joint Global Change Research Institute), Ryna Cui (Center for Global Sustainability, School of Public Policy, University of Maryland), Sha Yu (Pacific Northwest National Laboratory, Joint Global Change Research Institute)

NATIONAL

Scenario analysis of consumption-based emissions – the case of Sweden [Paper ID 161]

Johannes MORFELDT, Jörgen Larsson, Daniel J. A. Johansson (Chalmers University of Technology)

DEEP

SuCCESs - An open-source IAM for Energy-Land-Material-Climate Scenarios [Paper ID 68]

Nadine-Cyra FREISTETTER, Tommi Ekholm (Finnish Meteorological Institute)

DEEP

Ratcheting of climate pledges needed to limit peak global warming [Paper ID 105]

Gokul IYER, (Joint Global Change Research Institute, Pacific Northwest National Laboratory and University of Maryland), Yang Ou (Joint Global Change Research Institute, Pacific Northwest National Laboratory and University of Maryland), Nathan Hultman (Center for Global Sustainability, School of Public Policy, University of Maryland), James Edmonds (Joint Global Change Research Institute, Pacific Northwest National Laboratory and University of Maryland), Allen Fawcett (U.S. Environmental Protection Agency), James McFarland (U.S. Environmental Protection Agency), Stephanie Waldhoff (Joint Global Change Research Institute, Pacific Northwest National Laboratory and University of Maryland), Haewon McJeon (Joint Global Change Research Institute, Pacific Northwest National Laboratory and University of Maryland)

SECTORAL

Integrated Assessment Modeling of the global transportation sector decarbonization [Paper ID 217]

Simone SPEIZER, Jay Fuhrman, Page Kyle, Haewon McJeon (PNNL/JGCRI)

ELECTRICITY AND HYDROGEN

The Impact of Electric Grid Storage in a Long-Run, Multisector Dynamic Context [Paper ID 17]

Matthew BINSTED, Pralit Patel, Gokul Iyer, Sonny Kim, Yang Ou, Marshall Wise (Joint Global Change Research Institute, Pacific Northwest National Laboratory)

ELECTRICITY AND HYDROGEN

Bidirectional coupling of a long-term integrated assessment model REMIND with an hourly power sector model DIETER [Paper ID 81]

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Topics

National	Assessment of national mitigation strategies (including net-zero pathways) and the 2023 Global Stocktake
Deep	Analysis of deep mitigation strategies, including the use of carbon dioxide
Sectoral	Integrated assessment of pathways to carbon neutrality in individual sectors, including industry, transport and building
Electricity & Hydrogen	Advanced analysis of the role of electricity & hydrogen as part of mitigation strategies
Demand	Modelling energy demand, lifestyle change and radical energy efficiency improvements
Circular	Analysis of circular economy concepts and their consequences for greenhouse gas mitigation
Non-state	Modelling subnational mitigation strategies (non-state actors)
Transition	Representation of socio-technical transitions in IAM research (including institutional change) and issues related to feasibility
Economic	Economic assessment of climate policy and integration of mitigation, adaptation and (residual) impacts
Just	Analysis of distributional aspects of mitigation strategies and just transition strategies
Impacts	Integrated assessment of climate change impacts, including adaptation
Climate	Representation of the climate system and implications of new climate research insights (including carbon budgets)
Land	Integrated assessment of future land use and land-based mitigation
Sustainable	Assessment of Sustainable Development Strategies and assessment of water/land/energy interactions
SSP	Further elaboration of the Shared Socioeconomic Pathways (SSP) and updates of existing quantifications
Methods	Methodological issues (uncertainty analysis, new programming languages, presentation tools)
Stakeholder	IAM, stakeholder involvement and citizen science
Presentation	Novel ways of communication of IAM results

