8:30-9:00 Introduction to the Training Day (Room LDN 001) **Arrival Coffee** DMDU Overview and Robust Decision Making (Room LDN 001) 9:00-10:00 Robert Lempert Dynamic Adaptive Policy Pathways (DAPP) (Room LDN 001) 10:00.11:00 Jan Kwakkel **Break** 11:00-11:20 Scalable DMDU Analyses using Complex, High-runtime Model (Room LDN 001) 11:20-12:50 James Syme 12:50-13:50 Lunch Room LDN 1.03 Room LDN 2.05 Room LDN 3.23 Room LDN 1.02 Room LDN 1.04 Demo and Tutorial **Demo and Tutorial** Demo and Tutorial **Demo and Tutorial** Demo and Tutorial Session Session Session Session Session SISEPUEDE: **EMA Workbench Vulnerability Analysis** Rhodium 13:50-15:20 Methods David Gold Multi-Objective Robust Decarbonization DMDU Jan Kwakkel Optimization Tool for National and **Edmundo** Nathan Patrick Kane & **Subnational Planning** Molina-Perez Nastaran Tebyanian James Syme 15:20-15:40 **Break** Career Panel and Networking Session (Room LDN 001) 15:40-16:10 Michel Miro

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London, UK **Arrival Coffee** 8:30-9:00 Registration Day 1 Inauguration & Welcome (Room LDN 001) 9:00-9:30 **Opening Plenary** 9:30-10:30 Room LDN 001 Alejandro Poiré 10:30-10:45 Break Room LDN 1.02

DMDU for Sustainable Water Room LDN 1.04 Robustness of hydro-energy infrastructure planning under deep uncertainty Chairs: Andrea Castelletti, Jim Hall, Sara Fletcher and Marta Zanido **DMDU Efforts** Management and Climate in Latin America Resilience Chairs: David Grov Evaluation of Robust Water Adaptation Strategies under Climate Uncertainty Using Adaptive coastal infrastructure planning under deep uncertainty: A reinforce ment Robust Water Resource Policy Exploration for a Deeply Uncertain Future (2) Discussion forum: HydroBID-Alloc and DMDU (71) What do Modelers Owe Us? An learning approach (25) Decision-Making Under Deep Uncertainty in Latin America and the Caribbean: A Systematic Analysis of Emerging Practices, Challenges, and Opportunities (140) interactive exploration of trust, 10:45-12:45 Operationalizing the Safe Operating Space under Deep Uncertainty: A robust decision Assessing Hydropower Generation and Irrigation Reliability under Climate Change Uncertainty. A Water Allocation Perspective for the Blue Nile River Basin (16) values, communication and responsible modelling framework for hydropower planning in the Assessment of Water Supply Vulnerability in Lima under Climate Change Using an Integrated CHIRILU Model and Deep Mekong River basin (27) Sarah Wright, Erica Thompson Revealing Resilient Water-Energy System Configurations on Small Islands under De ep Uncertainty (52) What happens to coastal Louisiana without post-Katrina infrastructure improvements? Using hindcast scenarios to build trust and Uncertainty Decision Analysis (DMDU) (73) Making Robust Decisions Together: Lessons from Indusive Stakeholder Engagement in Climate Planning in Latin America (161) System-of-Systems Approach to the Water and Energy Networks in Alberta, Canada (131) understanding in systems modeling (100) DMDU Lunch 12:45-13:45 Room LDN 1.02

Practitioners' use of Room LDN 1.04

Artificial Intelligence in DMDU Room LDN 1.03 Room LDN 2.05 **FORESIGHT** Modeling Power Water Resources TRANSITIONS Systems in DMDU research and practice: and Climate Adaptation technology to improve DMDU environments opportunities and risks Robust Decision-Making for Distribution Grids: An XLRM-Based Exploratory Framework (30) Bridging the Gap: Embedding DMDU principles in construction project planning with Generative A (121) Robust water management strategies for grassland-based dairy farms in northwest Productive Delays (29) Germany (32) Decision-making under deep uncertainty in infrastructure procure ment (35) Making the Left Shift Happen: A Machine Learning Approach to Storm Overflow Projects (56) 13:45-15:45 Enhancing Adversarial Decision-Making Under Deep Uncertainty in Cyber Warfare (87 Deep Uncertainty Meets Market Complexity: Robust Decision Making for Distribution Grid-Level Energy Planning (105) Al-Schedule Risk Analysis for High-Stakes Rai Decisions: Lessons from a UK Megaproject Littoral Intelligence - AI support for Adaptive Coastal Management (67) NYC's Operations Support Tool: Insights from 15 Years of Decision Support (96) (62) What could Al have told us about decision-Modelling Policy Robustness & Uncertainty in the Energy Transition (142) Can large language models replicate human decision-making in water system management? (47) Evdving Multi-sectoral Tradeoffs in a Reservoir Syster Under Deeply Uncertain Climate and Socioeconomic Futures (124) inform the future of Indian dams in the Escuela de Gobierno Himalaya? (85) **Break** 15:45-16:00 (Grab-and-go coffee available) Room LDN 1.03

Communication of Methods and Room LDN 2.05 Room LDN 1.04 Rethinking Confidence in Sustainable DMDU for Sustainable **DMDU** Transport Planning with Deep Uncertainties in Future Climate, Methods Designed for Communication in DMDU Practice for the Polycrisis Development Experiences from LMICs hairs: Robert Lempe and Tim McDonald Demand, and Systemic Interdependency – P1 Chair. Yue Li and Raghav Pant RDM for power sector planning in Kenya (148) Governing on the Go: Uncertainty Management in the Context of Radical Collaborative Planning with DM DU (44) Climatic Uncertainty (60) 16:00-17:30 Framework Development for Multi-Benefits and Cost-Effectiveness Evaluation of Nature-DMDU Methods in Practice: Communication Challenges and Insights from Real-World Applications (109) Scenario-Neutral Approaches for Climate-Resilient Transport Infrastructure: The Case of Navigating Polycrisis Futures under Deep Uncertainty: Looking Back to Look Forward (149) Based Solutions for Flood Risk Reduction from Erosion: Bioengineering Study Case in Indonesia (113) European Ports (84) Transforming the Maritime Industry under Deep Uncertainty: Applying DM DU to the Implementation of Autonomous Ships (134) The impact of workshop using the simulation model in DMDU for long-term energy development in Japan (155) Developing a Concept of System Navigating Deep Uncertainty in Jamaica's Climate-Resilient Development Strategy (160) (153)Dinner in Lea Suites 1 & 2 — Hyatt Regency London Stratford 19:00-21:00

**Arrival Coffee** Registration Day 2 8:30-9:00 Opening Plenary (Room LDN 001) 9:00-09:50 **Erica Thompson** From Models to Policy: Adapting DMDU for National & Subnational **Tools and Resources** Robust Climate Decisions in DMDU in Health – P1 Chair. Pedro Nascimento de Lima to Support DMDU Uncertain Times: Enhancing IAMs Climate Plans - P1 Research and Practice - P1 with DMDU - P1 Exploratory Modeling of Global Water Scarcity Hotspots with the Global Change Analysis Model (GCAM): The Potential of Direct Potable Water Reuse (DPR) to Mitigate Water Scarcity (55) A Scenario-Assisted Learning And Experimentation Approach That Supports Entrepreneurs And Strategists To Navigate Towards Success By Identifying Necessary And Sufficient Conditions (4) Applying Robust Decision Making to ganda's Energy and Transport Plannin Under Deep Uncertainty (159) A Dynamic Adaptive Approach to strengthen Adaptive Leadership for Strategic Pathways: a multiple-case study in healthcare (5) 10:00-12:00 From Decarbonization to 'Energy Analysis' – Adapting State Climate Action Planning for Enhanding scenario assessment via machine learning: an epistemological perspective (110 Adaptive robust decision-making under deep certainty: a novel multi-stage multi-scenario multi objective optimization framework (10) Multiple Objectives (65) Deep uncertainty in vaccine supply chains: barriers to system characterization (91) Context Matters: How Data, Institutions, and Priorities Shape DMDU Outcomes in Iran, Uganda, and Croatia (152) Embracing uncertainty through robust decision-making is the key to sustainable Translating DMDU and RDM methods into practical corporate business boardrooms (46) biomass futures (88) Scaling up the share of circular medical consumables in the healthcare sector (129) Surrogate modeling to identify and naracterize optimal policy frontiers for narrative futures (157) Reducing Epistemic Uncertainty in the Water-Energy Food Nexus through Collaborative Learning and Systems Thinking (72) Building confidence in future biomass availability for BECCS deployment requir embracing deep uncertainty (89) Lunch 12:00-13:00 DMDU Room LDN 2.05 Room LDN 1.04 Rethinking Confidence in Sustainable nsport Planning with Deep Uncertainties in Future Climate, Demand, and Systemic Interdependency – P2 Chair. Yue Li and Raghav Pant Robust Climate Decisions in DMDU Tools and Resources Uncertain Times: Enhancing IAMs with DMDU – P2 in Health – P2 to Support DMDU Research and Practice - P2 **FORESIGHT** Crafting a multi-model study to ascertain geopolitical uncertainty effects on climate change mitigation (103) Aligning urban mobility goals, strategies and interventions under deep uncertainty (21) How Frequently to Test for Infection? (8) exmoto - Exploratory Modeling Toolkit (13)Climate uncertainty, tipping points, and physical science implications for decision-13:00-15:00 Early warning analysis of infectious disease spread under sparse data: a deep uncertainty analysis (57) Detecting Path Dependencies in Urban Mobility Transitions (136) Probabilistic Risk Assessment of Flood making (111) Damage to Roads: A Framework for Deep Uncertainty Quantification (49) Multi-Objective Optimization of Climate and Innovation Policies Under Uncertain Technological Change (122) Developing adaptive pathways for the planning of sustainable transport systems Impacts of uncertainty in funding for HIV elimination in Chicago (133) Who Clears the Skies? Distributing Carbon under uncertainty (158) Removal Fairly in an Era of Overshoot and Deep Uncertainty (126) **Break** Escuela de Gobierno y 15:00-15:15 Transformación Pública Tecnológico de Monterrey (Grab-and-go coffee available) Room LDN 1.04 Room LDN 2.05 Room LDN 1.02 Room LDN 1.03 Finding an Epistemic Memory Before Models: Historic Advancing DMDU Practice in Canada Operating Code for a Intelligence for Robust Decisionand North America: Exploring Designing for uncertainty-aware World in Transition Making Under Deep Uncertainty Al-CDSS (42) Cathleen Parsons; Stefan Buijs man and Se pinoud Azimi Rashti Context-Specific Challenges and 15:15-16:00 Chair: Tim McDonald **Opportunities** Yena Bassone-Quashie, Kasra Motlaghzadeh and Vanessa Schweizer • On linking dimate change research and DMDU (64) Laurence B. Mussio and Robert Identifying Principles for an Effective Epistemic System (154) Lempert Room LDN 1.04 DMDU for Governance, Room LDN 2.05

DMDU for Climate Risk, Policy Room LDN 1.03 Adaptation Limits Under DMDU Approaches for Energy Systems and Decarbonization Uncertainty in Coupled Human-Water Systems Chair Edoardo Borgomeo Pathways and Extreme Events Chair. Strategic Adaptation and Fragility Quantifying the solution space for adaptation decisions under scenarios of environmental change (61) Economic Disparity as a Lens for Assessing Adaptation Limits in Recurrently Flooded Exploring opportunities for adaptation within adaptation pathways to sea-level rise: A case study from Rostock, Germany (26) Power System Planning Under Deep Uncertainty Toward a Zero-Carbon Future (69) Regions (20) Integrating Local Knowledge and Indicator Systems for Drought Risk Assessment Under Uncertainty (70) Exploring compound events including rainfall and potential adaptation measures in deltas Modeling Collapse Risk Under Deep Uncertainty. A Monte Carlo Framework for State Fragility Classification (107) 16:15-18:00 Robust Decision-Making for Industrial Proces Heat Decarbonization: A Modular and Open-Source Modelling Approach (108) (24) From Possibility to Priority. A DMDU Framework for Actionable Regional Climate Insights on policy design to facilitate the eployment of seasonal long-duration energy Adaptation Limits of Global Coastal Farmers Under Sea Level Rise and Uncertainty (54) Risk Combining Stress-Testing, Scenario storage using a robust decision-making approach (112) Discovery, and Clustering (116) Urban Regenerative Design Meets DMDU: A Work-in-Progress Workflow from CUBE (139) Revisiting pathways approaches for navigating fractures futures (145) Reducing the catastrophic risk potential from unprecedented dimate extremes (128) Policy Search for Adaptive Portfolio Planning (151)

London, UK

8:30-9:00

# **Registration Day 3**

# **Arrival Coffee**

9:00-10:00

### Opening Plenary (Room LDN 001) Catherine Day

### Room LDN 1.02

Net Zero project development in contexts of deep uncertainty – from optimization to robustness Mark Workman, Alicia Newton, Johan Börje, Astley Hastings and Eilidh Forster

#### Room LDN 1.03

Practical applications of adaptive pathways Maya Buchanan, Kavita Heyn, Tim Reeder and Yena Bassone-Quashie

#### Room LDN 1.04

DMDU in practice: Reflections **from policy engagement** Steve Pye and Erica Thompson

#### Room LDN 2.05

Navigating Uncertain Al Futures Chair: Pedro Nascimento de Lima Addressing Biosecurity Risks from AI-Enabled Synthetic Biology" (15)

### 10:15-11:00

Room LDN 1.02
From Models to Policy: Adapting
DMDU for National & Subnational
Climate Plans - P2
Chair. Edmundo Molina-Perez

Stochastic Optimisation of Ukraine's Power Sector Reconstruction under Future Policy Uncertainty with PyPSA-Eur (63)

Multiple hazard scenarios in a changing climate (102)

Adaptation Pathways for Direct Air Capture in Canada A Proposed Framework for Multi-Sectoral Responses to Deep Techno-Economic and Socio-Political Uncertainty (125)

sessing applicability of Bayesian Belief Networks and Qualitative Probabilistic Networks for City-Level Climate Adaptation Decision-Making Under Deep Uncertainty (117)

#### Room LDN 1.03

Combining quantitative and qualitative disciplines for humancentric social policy decisions -P1

Doing business model innovation for sustainability transitions — Bringing in strategic foresight and human centered design (14)

Evaluation and Analysis on Spillover Effects of Flood Control Investment (90)

Unpacking the Futurists' Toolkit: Evolution, Diffusion, and Integration of Methods in Futures Studies (104)

Tapping into Collective Intelligence for complex social policy challenges (147)

### Room LDN 1.04

Water resource planning under deep uncertainty: from DMDU theory to implementation – P1 Chair. Charles Rouge

A first attempt in France to implement DMDU theories for strategic resilience planning in a water service example of a French drinking water management service (11)

Stress-testing development pathways under a changing climate: water-energy-food security in the lake Malawi-Shire river system (43)

The Emergence of DMDU Processes Coincident with Persistent Predictive Thinking: How it Works in Practice (95)

Entry Points to DMDU in Practice: Developing an Accessible Guidebook for Water Utilities (144)

Room LDN 2.05 DMDU

in Safety & Security

Understanding the Radicalization Process of Incels (28)

Multi-Resolution Modelling for Naval Ship Design (37)

Analogy-based simulation modelling: Uncertainty-based modelling of criminal supply chains (51)

Mapping deep uncertainty in coastal water Navigating the polycrisis of changing geopolitical and environmental landscape (141)

11:15-13:00

13:00-14:00

## Lunch

#### Room LDN 1.02

Modeling Trust and Resilience: Lessons from Cities and Coasts

From First Principles to Greater Trust A Framework for Responsible Modeling to Deliver Trusted Outcomes (76)

Quantifying Urban Flood Resilience Through Recovery Dynamics: Insights from Marikina City, Philippines (77)

Room LDN 1.03

Combining quantitative and qualitative disciplines for humancentric social policy decisions -P2

Adaptive Policy Planning and Scenarios for Climate Change Research (132)

Development of a Collaborative Decision Support Tool for Climate Change Adaptation under Deep Uncertainty (138)

Combining human-centered design with systems mapping to resolve complex public policy problems (146)

Explicitly considering societal values in cision making under deep uncertainty (150)

Room LDN 1.04 **Water resource planning under** deep uncertainty: from DMDU theory to implementation - P2

How DMDU facilitated the robust case for new reservoirs in England (34)

Towards Equitable Urban Water Management: Integrating Index-Based Insurance into Water Supply Portfolios in the Global South (98)

Room for living with water in the Dutch delta: dealing with the complex challenge of climate change (118)

DMDU Bridging the Gap between Analytically Based Development Policy Design and Implementation

and Miguel Ángel Santos

How do we validate research about tomorrow's world today? (114)

The Debt Burden of Climate Change: the Long-run Impact of Climate Shocks and Implications for Climate Finance (156)

16:00-16:10

14:00-16:00

### **Break** (Grab-and-go coffee available)

16:10-17:20

Can DMDU Support the Re-imagining of 21st Century Democracy?

Room LDN 001

Catherine Day, Steven Winthrop Popper, Edgar Barroso, George Di Martino & Alejandro Poiré

17:20-17:45

Closing Plenary Room LDN 001

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ID	Title	Authors
2	Robust Water Resource Policy Exploration for a Deeply Uncertain Future	Aaron Dewar and Dr. David R Johnson
4	Strategists 10 Navigate Towards Success by Identifying Necessary And Sufficient Conditions	James Derbyshire
5	A Dynamic Adaptive Approach to strengthen Adaptive Leadership for Strategic Pathways: a multiple-case study in healthcare	Anke Aarninkhof-Kamphuis, Hans Voordijk and Geert Dewulf
10	How Frequently to Test for Infection?  Adaptive robust decision-making under deep uncertainty: a novel multi-stage multi-scenario multi- objective optimization framework	Yakov Ben-Haim and Cliff Dacso Babooshka Shavazipour
11	A first attempt in France to implement DMDU theories for strategic resilience planning in a water service example of a French drinking water management service	Patault, E., ; Jaunat, J. ; Maurié, A. ; Le Coent, P. ; Chesneau, O. ; Saltel, M. ; Gervasone, L.; Neverre, N.; Marduel, B. Pequignot, E; Closet, J-F. Douez, O. and Goulard, F.
13	exmoto - Exploratory Modeling Toolkit	James Syme
14	5	Mark Workman; Stephen Hall; Jeffrey Hardy; Christoph Mazur; Jillian Anable; Mark Powel and Sophie Marie Wagner
15	Addressing Biosecurity Risks from Al-Enabled Synthetic Biology	Henry H. Willis
16	Allocation Perspective for the Blue Nile River Basin	Selam Sahlu; Gerald Corzo; David Gold; Caroline Newton and Chris Zevenbergen
20	Economic Disparity as a Lens for Assessing Adaptation Limits in Recurrently Flooded Regions	Leon Vin and Akiyuki Kawasaki
21	Aligning urban mobility goals, strategies and interventions under deep uncertainty  Targeting Adaptation Finance: A Criticality-Based Approach to Road Investment in Serbia	Phil Churchman; Sheridan Few and Katy Roelich Elco Koks; Shadi Shirazian; Goran Mladenovic; Jasna Plavsic; Jelena Cirilovic; Ana Vuković Vimić; Adrien Vogt-Schilb and Valentine Monnier
24	Exploring compound events including rainfall and potential adaptation measures in deltas	Dagmar Mennes
25 26		Emiliano Longo; Andrea Ficchì and Andrea Castelletti Ann-Kathrin Petersen, Valeria Di Fant, Gundula Winter, Saskia Wemers and Marjolijn Haasnoot
27		Bruno Invemizzi, Carola Calisi, Matteo Giuliani and Andrea Castelletti
28	Understanding the Radicalization Process of Incels	Tess A.I. Jongsma; Floortje M. d'Hont; Willem L. Auping; Jan H. Kwakkel
29	Productive Delays	Guillaume Lapierre-Berger; Yael Grushka-Cockayne and Juan Camilo Serpa
30	Robust Decision-Making for Distribution Grids: An XLRM-Based Exploratory Framework	Luis Victor-Gallardo and Taco Niet
32 34	Robust water management strategies for grassland-based dairy farms in northwest Germany  How DMDU facilitated the robust case for new reservoirs in England	<u>Kateryna Poberezhna and Guido Recke</u> Geoff Darch
35	Decision-making under deep uncertainty in infrastructure procurement	Dejan Makovšek
37	Multi-Resolution Modelling for Naval Ship Design	S.R.M. (Stefan) Salome; W.L. (Willem) Auping
42	Designing for uncertainty-aware Al-CDSS Stress-testing development pathways under a changing climate: water-energy-food security in the lake Malawi-Shire river system	Cathleen Parsons; Stefan Buijsman and Sepinoud Azimi Rashti Ajay Bhave; Suraje Dessai and Declan Conway
	Collaborative Planning with DMDU	Allison DeJong, Nastaran Tebyanian and Patrick Kane
46	Translating DMDU and RDM methods into practical corporate business boardrooms	Graciana Petersen
47	Can large language models replicate human decision-making in water system management?	Wyatt Arnold, Jonathan Herman, Matteo Giuliani and Andrea Castelletti
49	Probabilistic Risk Assessment of Flood Damage to Roads: A Framework for Deep Uncertainty Quantification	Matthias Hauth ; Margreet van Marle ; Chamidu Gunaratne ; Hans de Moel and Elco Koks
	Analogy-based simulation modelling: Uncertainty-based modelling of criminal supply chains	C.S van den Elshout; W.L. Auping; F.M. d'Hont; P. Steinmann and J. Kwakkel
52	Revealing Resilient Water-Energy System Configurations on Small Islands under Deep Uncertainty	Marco Tangi; Alessandro Amaranto and Elisabetta Garofalo Kushagra Pandey; Jens de Bruijn; Wouter Botzen; Hans de
54	Adaptation Limits of Global Coastal Farmers Under Sea Level Rise and Uncertainty  Exploratory Modeling of Global Water Scarcity Hotspots with the Global Change Analysis Model	Moel and Jeroen C.J.H. Aerts  Amal Sarfraz, Hassan Niazi , Neal Graham, Thomas Wild, Niko
55 56	(GCAM): The Potential of Direct Potable Water Reuse (DPR) to Mitigate Water Scarcity  Making the Left Shift Happen: A Machine Learning Approach to Storm Overflow Projects	Wanders, Marc F.P. Bierkens and David Gold  James Clarke and Karyn Saunders
	Early warning analysis of infectious disease spread under sparse data: a deep uncertainty analysis	Pouria Paridar; Palok Biswas; Yilin Huang and Alexander Verbraeck
60	Governing on the Go: Uncertainty Management in the Context of Radical Climatic Uncertainty	Shilpi Srivastava
61	Quantifying the solution space for adaptation decisions under scenarios of environmental change	Frances E. Dunn; Marjolijn Haasnoot; Haomiao Du; Star Karabil; Philip S. J. Minderhoud; Vincent Schippers; Murray Scown; Annisa Triyanti; Trang Vu and Hans Middelkoop
62	Al-Schedule Risk Analysis for High-Stakes Rail Decisions: Lessons from a UK Megaproject	Rhys Phillips, Richard Palczynski and Richard Bendall-Jones
63	Stochastic Optimisation of Ukraine's Power Sector Reconstruction under Future Policy Uncertainty with PyPSA-Eur	Lukas Schirren and Adam Hawkes
64 65	On linking climate change research and DMDU  From Decarbonization to 'Energy Analysis' – Adapting State Climate Action Planning for Multiple	David A. Stainforth  Allison DeJong; Nastaran Tebyanian; Patrick Kane; Edmundo
67		Molina-Perez and James Syme Walter Zesk; Tishya Chhabra; Peter Stempel; Sarah Dole and Skylar Tibbits
69	Power System Planning Under Deep Uncertainty Toward a Zero-Carbon Future	Fatemeh Rajaei Najafabadi and Mark O'Malley
70	Integrating Local Knowledge and Indicator Systems for Drought Risk Assessment Under Uncertainty	Abdullah Konak; Michael G. Jacobson; Nazmiye Balta-Ozkan and Elisabeth A. Shrimpton
71	Evaluation of Robust Water Adaptation Strategies under Climate Uncertainty Using HydroBID-Alloc and DMDU	Cayo Ramos Taipe, Alex borda, Enrique Triana and Litzia Cisneros
72	Reducing Epistemic Uncertainty in the Water-Energy-Food Nexus through Collaborative Leaming and Systems Thinking	Abdullah Konak; Michael Jacobson; Christopher Scott; Annette Huber-Lee; Laura Schmitt Olabisi; Bassel Daher and Vicki Morrone
73	Assessment of Water Supply Vulnerability in Lima under Climate Change Using an Integrated CHIRILU Model and Deep Uncertainty Decision Analysis (DMDU)	Cayo Ramos, Jesus Palomino and Abel Mejia
76	From First Principles to Greater Trust. A Framework for Responsible Modeling to Deliver Trusted Outcomes	Christopher Dacey
77	Outcomes Quantifying Urban Flood Resilience Through Recovery Dynamics: Insights from Marikina City, Philippines	' '
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84	Scenario-Neutral Approaches for Climate-Resilient Transport Infrastructure: The Case of European Ports What could Al have told us about decision-making on past dams, and how does this inform the future	Femandez-Perez, A., Verschuur, J. and Hall, J.W. Lucy Goodman, Rhys Phillips, Judith Plummer-Braeckman and
	of Indian dams in the Himalaya?	Leonie Mueck
87	Enhancing Adversarial Decision-Making Under Deep Uncertainty in Cyber Warfare: An Agentic Al-based Game Theoretic Cyber Defense Model.	Joseph Ponnoly
88	Embracing uncertainty through robust decision-making is the key to sustainable biomass rutures	Eilidh Forster, Alicia Newton, Gareth Johnson, Bing Xu, Emma Persson and Joel Weston.
89	Building confidence in future biomass availability for BECCS deployment requires embracing deep uncertainty	Alicia Newton; Eilidh Forster and Emma Persson
90	Evaluation and Analysis on Spillover Effects of Flood Control Investment	Risako Mori; Akiyuki Kawasaki and Mikio Ishiwatari
91	Deep uncertainty in vaccine supply chains: barriers to system characterization	David Robins; Farshid Babaie and Solomon Brown
95	The Emergence of DMDU Processes Coincident with Persistent Predictive Thinking: How it Works in Practice	Henry Graumlich
96	NYC's Operations Support Tool: Insights from 15 Years of Decision Support	W. Josh Weiss; Megan Rivera; Joe LoBuglio and Adao Matonse
98	Towards Equitable Urban Water Management: Integrating Index-Based Insurance into Water Supply Portfolios in the Global South	Andrea Cominola; Greicelene Silva; David Gold; Conceicao de Maria Albuquerque Alves; Heidi Kreibich; and Eduardo Mario Mendiondo
100	What happens to coastal Louisiana without post-Katrina infrastructure improvements? Using hindcast scenarios to build trust and understanding in systems modeling	Jordan R. Fischbach; David R. Johnson; Brett McMann; Patrick Kane; Ovel Diaz, Diana DiLeonardo and Martijn Bregman
	Multiple hazard scenarios in a changing climate	Sandra Vaiciulyte and Sara Giarola Iván García Kerdan and Sara Giarola
104	Unpacking the Futurists' Toolkit: Evolution, Diffusion, and Integration of Methods in Futures Studies  Deep Uncertainty Meets Market Complexity: Robust Decision Making for Distribution Grid-Level Energy	Alfonso Ávila Robinson and Guillermina Benavides
105	Planning Medaling Collabora Pick Under Doop Uncertainty, A Monte Carlo Francycork for State Fragility	Ioanna Kalospyrou and Solomon Brown
107	Classification  Polyet Desirion, Making for Industrial Process Heat Desarbonisation: A Modular and Open Source	Francis Ga Nin Li
108	Modelling Approach  DMDU Methods in Practice: Communication Challenges and Insights from Real-World Applications	Seyed Ahmad Mahmoudi Lahijani Nastaran Tebyanian; Patrick Kane and Allison DeJong
	Enhancing scenario assessment via machine learning: an epistemological perspective	Francesco Nappo
111	Climate uncertainty, tipping points, and physical science implications for decision-making	Jonathan Rosser and David Stainforth
112	Insights on policy design to facilitate the deployment of seasonal long-duration energy storage using a robust decision-making approach	Jack Gower and Solomon Brown
113	Framework Development for Multi-Benefits and Cost-Effectiveness Evaluation of Nature-Based Solutions for Flood Risk Reduction from Erosion: Bioengineering Study Case in Indonesia	Qisthina Dewi and Akiyuki Kawasaki
114	How do we validate research about tomorrow's world today?	Dan Sherwood
116	From Possibility to Priority: A DMDU Framework for Actionable Regional Climate RiskCombining Stress- Testing, Scenario Discovery, and Clustering	Ted Buskop; Frederiek Sperna Weiland; Robert Sakic Troglic; Stefan Hochrainer Stigler and Bart van den Hurk
117	Climate Adaptation Decision-Making Onder Deep Oncertainty	Ellie Murtagh
118	Room for living with water in the Dutch delta: dealing with the complex challenge of climate change  Bridging the Gap: Embedding DMDU principles in construction project planning with Generative Al	Lilian van den Aarsen, Saskia van Vuren and Luc de Vries Inneke Mayachita; Sophie Gibbs; Rhys Phillips and Leonie Mueck
	Multi-Objective Optimization of Climate and Innovation Policies Under Uncertain Technological Change	
124	Evolving Multi-sectoral Tradeoffs in a Reservoir System Under Deeply Uncertain Climate and	Muhammed Rashid; Riddhi Singh and D. Parthasarathy
	Socioeconomic Futures Adaptation Pathways for Direct Air Capture in Canada: A Proposed Framework for Multi-Sectoral	<u> </u>
125	Responses to Deep Techno-Economic and Socio-Political Uncertainty	Kasra Motlaghzadeh and Vanessa Schweizer  Kasra Motlaghzadeh; Neil Craik; Juan Moreno-Cruz and
	Who Clears the Skies? Distributing Carbon Removal Fairly in an Era of Overshoot and Deep Uncertainty	Vanessa Schweizer
	Reducing the catastrophic risk potential from unprecedented climate extremes	Tom Wood; Hebe Nicholson; Jenix Justine and Tom Matthews Paula Götz; Saba Hinrichs-Krapels; Willem Auping and Jan
_	Scaling up the share of circular medical consumables in the healthcare sector	Paula Gotz; Saba Hinrichs-krapels; Willem Auping and Jan Kwakkel Victoria Jones
	System-of-Systems Approach to the Water and Energy Networks in Alberta, Canada Adaptive policy planning and scenarios for climate change research	Vanessa Schweizer and Marina Andrijevic
133	Impacts of uncertainty in funding for HIV elimination in Chicago	Anna Hotton, Pedro Nascimento de Lima, Raffaele Vardavas, Kara Jia, Nick Collier, Robert Lempert and Jonathan Ozik
134	Transforming the Maritime Industry under Deep Uncertainty: Applying DMDU to the Implementation of Autonomous Ships	Takuya Nakashima
136	Detecting Path Dependencies in Urban Mobility Transitions	Jin Rui Yap; Orlando Roman and Bryan Adey
138	Development of a Collaborative Decision Support Tool for Climate Change Adaptation under Deep Uncertainty	Takuya Nakashima; Ryota Wada; Nariaki Nishino; Kenya Suzuki and Takahiro Oyama
139	Urban Regenerative Design Meets DMDU: A Work-in-Progress Workflow from CUBE	Simona Mannucci
140	Decision-Making Under Deep Uncertainty in Latin America and the Caribbean: A Systematic Analysis of Emerging Practices, Challenges, and Opportunities	Yosune Miquelajauregui, Conceição de Maria Albuquerque Alves, Carolina Guadalupe Cruz Nuñez, Matias Paredes Vergara, June Choi and Sara Diane Turner
141	Mapping deep uncertainty in coastal water - Navigating the polycrisis of changing geopolitical and environmental landscape	Aleksi Neuvonen
142	Modelling Policy Robustness & Uncertainty in the Energy Transition	lan Burton; Femke Njisse and James Salter

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144	Entry Points to DMDU in Practice: Developing an Accessible Guidebook for Water Utilities	Nastaran Tebyanian; Jordan Fischbach and Alan Cohn
145	Revisiting pathways approaches for navigating fractures futures	Saskia E. Werners; Edward Sparkes; Olasunkanmi Habeeb Okunola; Greta Dekker; Himanshu Shekhar and Michael Hagenlocher
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159	Applying Robust Decision Making to Uganda's Energy and Transport Planning Under Deep Uncertainty	CCG, AFD and WBG representatives
160	Navigating Deep Uncertainty in Jamaica's Climate-Resilient Development Strategy	CLG, 2050 Pathways Platform and CCD representatives
161	Making Robust Decisions Together: Lessons from Inclusive Stakeholder Engagement in Climate Planning in Latin America (161)	Jairo Quiros-Tortos
	Opening Plenary (Day 1)	Alejandro Poiré
	Discussion forum "What do Modellers Owe Us? An interactive exploration of trust, values, communication and responsible modelling"	Sarah Wright, Erica Thompson and Nadia Leonova
	Opening Plenary (Day 2)	Erica Thompson
	Memory Before Models: Historic Intelligence for Robust Decision-Making Under Deep Uncertainty	Laurence B. Mussio and Robert Lempert
	Advancing DMDU Practice in Canada and North America: Exploring Context-Specific Challenges and Opportunities	Yena Bassone-Quashie, Kasra Motlaghzadeh and Vanessa Schweizer
	DMDU in practice: Reflections from policy engagement	Steve Pye and Erica Thompson
	Net Zero project development in contexts of deep uncertainty – from optimization to robustness	Mark Workman, Alicia Newton, Johan Börje, Astley Hastings and Eilidh Forster
	Practical applications of adaptive pathways	Maya Buchanan, Kavita Heyn, Tim Reeder and Yena Bassone- Quashie.
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