

Monday, January 27th morning
(room V115-V116)

8:00: Welcome breakfast and registration

8:45: Opening talk by the SIG Chairs

Session: Design theory and new measures of performance
Chair: Ehud Kroll

9:00 – 9:45	Data-Driven Innovation	Jianxi LUO (Singapore University of Technology and Design)
9:45 – 10:30	How design theory sheds light on performance measurement in both rule-based and innovative design	Agathe Gilain (MINES ParisTech)

☉ 10:30 – 11:00: Coffee break ☉

Session: design theory and knowledge
Chair: Eswaran Subrahmanian

11:00 – 11:45	Dymaxion World of Buckminster Fuller – how C-K concept/knowledge relates to invention	Thomas ZUNG (CEO of Fuller, Sadao & Zung architects)
11:45 – 12:30	Design theory, Topos and socio-Ecosystems: innovative design as preservation	Armand Hatchuel (MINES ParisTech)

12:30 – 14:00 Lunch



Monday, January 27th afternoon
(room V115-V116)

Session: Design theory and public management
Chair: Armand Hatchuel

14:00 – 14:45	A C-K based tool for the innovative generation of policy generation	Irene Pluchinotta (University College London)
14:45 – 15:30	State-of-the-art for Public Policy and Design Theory	Marta Gasparin (Leicester University)

☪ 15:30 – 16:00: Coffee break ☪

Roundtable and collective discussion on ‘the role of formal design theory in design education – beyond project-based learning’
Chair: Yoram Reich

16:00 – 17:30	Participants: Albert David (Dauphine Université – PSL) & Anaëlle Camarda (MINES ParisTech PSL), Ehud Kroll (ORT Braude College), Frido Smulders (TU Delft)
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17:30 – 18:15	How to make Bottom of the Pyramid relevant? The Danone Experience	Eric Soubeiran, VP Nature & Water cycle, Chief Executive Danone Ecosystem Fund
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18:30 – 21:00:

🍷 Visit of the museum of mineralogy at MINES ParisTech 🍷

🍷 Cocktail in Salle des Colonnes (V213) 🍷

Tuesday, January 28th morning
(room V111 / V112-113-114 / V115 / V116 / V119 / Chevalier)

8:30: ☉ | coffee and breakfast | ☉

Parallel session

DESIGN THEORY AND INDUSTRIAL DESIGN, ART AND PHILOSOPHY

Chair: Benoit Weil

- 9:00-9:30. *The meaning of concept definition.* Yvonne Eriksson (**Mälardalen University**), Kristin Paetzold (**Universität der Bundeswehr München**)
- 9:30-10:00. *Thinking outside the moral box: the « foresight ethics » approach of the Montreal Declaration on Responsible AI.* Christophe Abrassart (**Université de Montréal**)
- 10:00-10:30. *The psychic life of design innovation.* Ken Starkey (**The University of Nottingham**)

9:00 -12:30

Room V111

☉ | **10:30 – 11:00 Coffee break** | ☉

- 11:00-11:30. *Industrialism and Modernism or Scientific Management, Arts and Design.* Per Aman, Hans Andersson (**Linköping University**)
- 11:30-12:00. *Designers as truth makers.* Claudia Eckert (**The Open University**), Rafaela Hillerbrand (**Karlsruhe Institute of Technology**)
- 12:00-12:30. *Design Innovation in collective intimacy: the transduction of power.* Anne-Françoise Schmid (**Chaire TMCI**), Muriel Mambrini-Doudet (**INRA**), Eswaran Subrahmanian, Ira Monarch (**CMU**)

Parallel session

DESIGN THEORY, DATA SCIENCE AND AI

Chair: Armand Hatchuel

- 9:00-9:30. *A Conceptual Map for Management-Compatible Artificial Intelligence*. Alix Nicolas, Albert David (**Dauphine Université**)
- 9:30-10:00. *Syntactic and Semantic Generativity in Engineering Design*. Hein Andreas Makoto (**Centrale Supélec**)
- 10:00-10:30. *Extending C-K Theory with Notions from Design Abduction*. Lauri Koskela (**University of Huddersfield**), Ehud Kroll (**ORT Braude College**)

🕒 **10:30 – 11:00 Coffee break** 🕒

- 11:00-11:30. *Design Representations in Axiomatic Design*. Christopher Brown (**Worcester Polytechnic Institute**)
- 11:30-12:00. *When I and AI Create: Examining Performance Gains from Human-AI Collaborative Co-creation*. Leona Chandra Kruse (**University of Liechtenstein**) David Agogo (**Florida International University**)
- 12:00-12:30. *Algorithmic approach to engineering design*. Vladimir Sedenkov (**Belarusian state university**)

9:00-12:30

Room V112-V113-
V114

Parallel session

DESIGN THEORY AND INNOVATION MANAGEMENT

Chair: Irene Pluchinotta

- 9:00-9:30. *Is Product/Service System Designing Different from Other Designing?* Sakao Tomohiko, Neramballi Abhijna (**Linköping University**), John Gero (**University of North Carolina at Charlotte**)
- 9:30-10:00. *Slow design innovation: a response to our future in the anthropocene epoch.* Marta Gasparin, William Green (**Leicester University**) Christophe Schinckus (**CIRST**)
- 10:00-10:30. *Corporate Liberation and Employability.* Stanislas Banaszuk (**Université Dauphine**)

9:00 -12:30

Room V115

☉| **10:30 – 11:00 Coffee break** |☉

- 11:00-11:30. *The production of law in contexts of breakthrough innovation: temporary hesitations, or crisis of design regime?* Albert David, Iris Champagne (**Université Dauphine**)
- 11:30-12:00. *Analysis of Design Teams' Behaviors: Temporary Sub-Teams?* Julie Milovanovic (**Ecole Centrale de Nantes**) John Gero (**University of North Carolina at Charlotte**)
- 12:00-12:30: *What does proof of concept (POC) really do? A systematic comparison of generativity and robustness of POC practices.* Caroline Jobin (**MINES ParisTech**)

Parallel session

DESIGN THEORY AND THE DESIGN OF COLLECTIVE ACTION

Chair: William Green

- 9:00-9:30. *Setting up for successful interdisciplinary collaborations in science: a case of a National Science Challenge in New Zealand.* Rafaela Costa Camões Rabello, Katharina Ruckstuhl (**University of Otago**), Paul Woodfield (**Auckland University of Technology**), Olga Kokshagina (**RMIT University**) Susan Sandretto (**University of Otago**), Willy-John Martin (**Callaghan Innovation**)
- 9:30-10:00. *Open organising of research: multiple perspectives on design research prototypes.* Olga Kokshagina (**RMIT University**)
- 10:00-10:30. *Bridging Design Education and Research through a Strategic Design Lens.* André Liem (**Norwegian University of Science and Technology**)

☉ **10:30 – 11:00 Coffee break** ☉

- 11:00-11:30. *On modelling the embeddedness of design in larger social endeavours – lessons learned from open laboratories.* Albrecht Fritzsche (**Universität Ulm**)
- 11:30-12:00. *Generating alternatives for decision models.* Alexis Tsoukiàs (**Dauphine Université**), Alberto Colorni (**Politecnico di Milano**)
- 12:00-12:30. *Taking collective (design) decisions in a Multi-Issue game.* Femke Bekius (**Radboud university**) Helle Hvid Hansen (**Delft University of Technology**)

9:00 -12:30

Room V116

Parallel session

DESIGN THEORY AND DESIGN METHODS

Chair: Sandor Vajna

- 9:00-9:30. *Design of Brakes: Applied category theory.* Spencer Briener, Blake Pollard, Eswaran Subrahmanian **(Carnegie Mellon University)**
- 9:30-10:00. *A framework for the conceptual design of geo-structures.* Denis Leboeuf **(Université Laval)**
- 10:00-10:30. *Designerly Activity Theory: A Framework for Understanding Research Through Design.* Mithra Zahedi **(Université de Montréal)**

☉ **10:30 – 11:00 Coffee break** ☉

9:00 -12:30

Room V119

- 11:00-11:30. *Integral design frame work for integrated building design and the added value of C-constructs for practitioners.* Wim Zeiler **(Faculty of the Built Environment)**
- 11:30-12:00. *How do design theories account for novelty?* Majda Perisic Marija **(University of Zagreb)** Mario Štorga **(University of Zagreb & Luleå University of Technology)**, John Gero **(University of North Carolina at Charlotte)**
- 12:00-12:30: *A theoretical foundation for Design for Simplicity.* Fabian Pilz **(Otto-von-Guericke University Magdeburg)**

Parallel session

DESIGN THEORY AND COGNITION

Chair: Olivier Potier

9:00 -12:30

Room
Chevalier

- 9:00-9:30. *An Overview of an EEG Study of Designers Across Domains and Tasks.* Sonia Vieira (**Institute of Science and Innovation in Mechanical and Industrial Engineering, FEUP**), John Gero (**UNCC**)
- 9:30-10:00. *Toward an analysis of architectural design actions.* Maria Rosaria Stufano Melone (**Politecnico di Bari**)
- 10:00-10:30. *The Dual-Process Theory of Thinking in Cognitive Science and Its Incorporation into a Design Theory.* John Gero (**UNCC**) Udo Kannengiesser (**Johannes Kepler Universität**)

☉ **10:30 – 11:00 Coffee break** ☉

- 11:00-11:30. *Bounded imagination: Flip-side of bounded rationality.* Frido Smulders (**Delft University of Technology**)
- 12:00-12:30. *Scientific Reflection with Notation Systems and Visual Languages.* Martin Brösamle (**ETH Zurich**)

12:30 – 14:00 Lunch



Tuesday, January 28th afternoon
(room V115-V116)

Session: Design theory and collective action
Chair: Frido Smulders

14:00-14:45	Mixing oil and water: developing theories of/for practice in management research informed by design science	Dimo Dimov (University of Bath), George Romme (TU Eindhoven)
14:45 – 15:30	We are not users – dialogues, diversity and design” (MIT Press book, 2019)	Eswaran Subrahmanian (CMU & NIST), Yoram Reich (Tel Aviv Univ)

☉ | 15:30 – 16:00: Coffee break | ☉

Chair: Benoit Weil

16:00 – 16:45	Research and Innovation in Silicon Valley	Christophe Lecuyer (Sorbonne Université)
16:45 – 17:30	Closing and Future Program, Eswaran Subrahmanian	