

Monday, January 30th morning

8:00: Welcome and registration (☺ coffee and breakfast ☺)

8:45: Opening talk by the SIG Chairs

Session: Design theory and mathematics Chair : Pascal Le Masson		
9:00 – 9:45	A category of design steps	Spencer Breiner (NIST), Eswaran Subrahmanian (CMU)
9:45 – 10:30	C-K theory: Coverings and forcings in open worlds. A categorical interpretation	Armand Hatchuel (CGS, MINES ParisTech PSL Research)

☺ 10:30 – 11:00: Coffee break ☺

Session: Designing Tunes and Flavors Chair : Akin Kazakci		
11:00 – 11:45	<u>Invited speaker:</u> Flow machines	François Pachet, (SONY Computer Science Laboratory)
11:45 – 12:30	<u>Invited speaker:</u> Molecular Gastronomy: Exploring the Science of Flavor	Hervé This, INRA & Agro ParisTech, member of the Academy of Science

12:30 – 14:00 Lunch



Monday, January 30th afternoon

Session: Computational creativity and design theory Chair: Eswaran Subrahmanian		
14:00 – 14:45	AutoGenetic Design Theory	Sandor Vajna (Otto-von-Guericke-Universitaet Magdeburg)
14:45 – 15:30	Out-of-class novelty generation	Akin Kazakci (CGS, MINES ParisTech PSL Research Univ), Mehdi Cherti, Balazs Kégl (CNRS)

☉ 15:30 – 16:00: Coffee break ☉

Round table and collective discussion: Teaching design vs teaching design theory Chair : Monica Calcagno	
16:00	Wim Zeiler (University of Technology Eindhoven), Ehud Kroll (ORT Braud College), Sophie Hooge (CGS, MINES ParisTech PSL Research Univ), Monica Calcagno, Daniela Pavan (Ca' Foscari University)

Tuesday, January 31th morning

8:30: ☕ | coffee and breakfast | ☕

Parallel session

<p>9:00 -11:30 Room V111</p>	<p>Design theory, design thinking, design humanities): chair Pascal Le Masson</p> <ul style="list-style-type: none"> • Visual diagnostics for design thinking teams II, Axel Menning, Benedikt Ewald (Hasso Plattner Institute) • Measuring the generative power of an organisational routine, Mario Le Glatin, Pascal Le Masson, Benoit Weil (CGS, MINES ParisTech PSL Research Univ) • Creativity and design in data science, Yohann Sitruk, Akin Kazakci, (CGS, MINES ParisTech PSL Research Univ) Mehdi Cherti, Balazs Kégl (CNRS) • Speaking with word, gesture and diagram, Barbara Tversky (Columbia and Stanford) • Design and aesthetics in practice of science, Anne-lyse Renon (Télécom ParisTech) • Designing non-verbal concepts through gestures and movements, Christophe Abrassart (Université de Montréal)
<p>9:00 -11:30 Room V112-V113-V114</p>	<p>DT and organisations: chair Akin Kazakci</p> <ul style="list-style-type: none"> • Designers' go-no-go decision-making, Gajanan Kulkarni (Indian Institute of Science) • A study of Idea Combination in Brainstorming, Thomas Gillier (GEM) • Design theory for generating alternatives in public policy making, Irene Pluchinotta (Uni. Paris Dauphine) • Design and socio-materiality - Business models as cognitive configurations, Dirk Schneckenberg (ESC Rennes). • Designing a performance framework for an additive manufacturing factory, Nicolas Judalet, Emmanuel LeGougec (Perfect Industry), Akin Kazakci (CGS, MINES ParisTech PSL Research Univ) • Impact of design on innovation, Sandeep Mishra (Schneider Electric)
<p>9:00 -11:30 Room V115</p>	<p>DT and methods : chair Benoit Weil</p> <ul style="list-style-type: none"> • Process models: plans, predictions or prophecies, Claudia Eckert (Open University), Martin Stacey, Rafaela Hillerbrand (Karlsruhe Institute of Technology) • Design theory and other disciplines, Frido Smulders (Delft University of Technology) • Integrated and innovative method to address security issues of transport systems, Giacomo Bersano (AIM Innovation) • Ready made design for financial innovations, Gasparin Marta (Leicester University) • Meta design theory, Vladimir Sedenkov (Minsk) • Generative Knowledge Management and new models of luxury: formal approaches and organization, Daniel Carvajal, Pascal Le Masson, Benoit Weil (CGS, MINES ParisTech PSL Research Univ)

Parallel session (next)	
9:00 -11:30 Room V116	<p>Design T: logic, language, knowledge structure): chair Eswaran Subrahmanian</p> <ul style="list-style-type: none"> • Designing architecture: how many rules and constraints to manage memories? Rossella Stufano (Technical University of Bari) • Rose is a rose is a rose - design knowledge diversity, Hans Andersson and Per Aman, (Linköping University) • PSI Matrix - a framework and a theory of design, Yoram Reich (Tel Aviv University), Eswaran Subrahmanian (CMU) • Design evolution and the Mathematical Design Studio, Lex Hendriks, (EXIN/ILLC) • Varieties of abduction in design, Lauri Koskela (University of Huddersfield), Ehud Kroll (ORT Braude College)
9:00 -11:30 Room V119	<p>Design theory and education: chair Yoram Reich</p> <ul style="list-style-type: none"> • From teaching a design methodology to teaching a design method: The role of design theory, Ehud Kroll (ORT Braud College) • An integral approach to building design, Wim Zeiler (University of Technology Eindhoven) • Using design to change management education: radical innovation vs entertaining facelift, Monica Calcagno, Daniela Pavan (Ca' Foscari University)

☺ 11:30 – 11:45: Coffee break ☺

11:45 – 12:30	<p><i>Invited speaker:</i> Knowledge management and generativity - “patrimoine de creation” in Dom Perignon champagne Chair: Pascal Le Masson</p>	<p>Vincent Chaperon, Dom Perignon Oenologist & head of R&D</p>
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12:30 – 14:00 Lunch



Tuesday, January 31th afternoon

Session: Design theory and new inspirations Chair : Ehud Kroll		
14:00 – 14:45	Designing ethos	Yoram Reich (Tel Aviv University), Eswaran Subrahmanian (CMU) Georges Amar
14:45 – 15:30	Enhancing discussion between innovation proposers and decision makers	Antoine Thuillier Matt Fuller, Albert David (Paris-Dauphine Université)

☕ 15:30 – 16:00: Coffee break ☕

Session: Design theory and social sciences Chair : Akin Kazakci		
16:00 – 16:30	Human-centred design: a complementary approach to design	Mary Lou Maher (UNC Charlotte) via Skype
16:30 – 17:00	Ekphrastic expression as a design method	John Gero (George Mason University) via Skype

17:00 Closing and Future Program, chair Eswaran Subrahmanian

The next SIG on DT will be on 29th-30th January 2018

**Cocktail for the 10th Design Theory
workshop**

Thank you for coming!

Wednesday, February 1st morning

Introduction to design theory

8:30: ☕ coffee and breakfast ☕

Introduction		
9:00 – 9:30	<ul style="list-style-type: none">• What is design theory ?• Overview of the day	Akin Kazakci (CGS, MINES ParisTech PSL Research Univ)

Background		
9:30 – 10:30	<ul style="list-style-type: none">• Optimization• Search• Design as problem solving (Simon)	Akin Kazakci (CGS, MINES ParisTech PSL Research Univ), Eswaran Subrahmanian (CMU)

☕ 10:30 – 11:00: Coffee break ☕

Engineering design theories - managing the process		
11:00 – 12:30	<ul style="list-style-type: none">• Theory of technical systems (Hubka and Eder)• Systematic design (Pahl and Beitz)• Integrated Product Development, (Olsson)	Sandor Vajna (Otto-von-Guericke-Universitaet Magdeburg)

12:30 – 13:30 Lunch



Wednesday, February 1st afternoon

Industrial design - Adornment and wit		
13:30 – 14:30	<ul style="list-style-type: none"> • Wedgewood • Bauhaus - Itten, Klee, Albers (1919-33) • Raymond Loewy (1950) • Post-1970 	Armand Hatchuel (CGS, MINES ParisTech PSL Research Univ)

Formal design theories I		
14:30 – 15:30	<ul style="list-style-type: none"> • General design theory (Yoshikawa) • Axiomatic design (Suh) • Infused design (Shai and Reich) 	Yoram Reich (Tel Aviv University) and Akin Kazakci (CGS, MINES ParisTech PSL Research Univ)

☉ 15:30 – 16:00: Coffee break ☉

Formal design theories II		
16:00 – 16:30	<ul style="list-style-type: none"> • Concept-Knowledge (Hatchuel and Weil) • Imaginative Constructivism (Kazakci) • PSI theory (Subrahmanian and Reich) 	Yoram Reich (Tel Aviv University) and Akin Kazakci (CGS, MINES ParisTech PSL Research Univ)

Discussion and conclusions - Design theory and your research		
16:30 – 17:00	Akin Kazakci, Armand Hatchuel (CGS, MINES ParisTech PSL Research Univ), Yoram Reich (Tel Aviv University), Eswaran Subrahmanian (CMU)	

Publishing in design theory		
17:00	Yoram Reich (Tel Aviv University)	