

**Monday, January 30<sup>th</sup> morning**

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

8:45: Opening talk by the SIG Chairs

**Session: Computational creativity and design theory**

**Chair: Eswaran Subrahmanian**

9:00 – 9:45	AutoGenetic Design Theory	Sandor Vajna (Otto-von-Guericke-Universitaet Magdeburg)
9:45 – 10:30	Out-of-class novelty generation	Akin Kazakci (CGS, MINES ParisTech PSL Research Univ), Mehdi Cherti, Balazs Kégl (CNRS)

☺ 10:30 – 11:00: Coffee break ☺

**Session: Designing Tunes and Flavors**

**Chair : Akin Kazakci**

11:00 – 11:45	<i>Invited speaker:</i> Flow machines	François Pachet, (SONY Computer Science Laboratory)
11:45 – 12:30	<i>Invited speaker:</i> 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 30<sup>th</sup> afternoon**

<b>Session: Design theory and mathematics</b> <b>Chair : Pascal Le Masson</b>		
14:00 – 14:45	A category of design steps	Spencer Breiner (NIST), Eswaran Subrahmanian (CMU)
14:45 – 15:30	C-K theory: Coverings and forcings in open worlds. A categorical interpretation	Armand Hatchuel (CGS, MINES ParisTech PSL Research)

☉ 15:30 – 16:00: Coffee break ☉

<b>Round table and collective discussion: Teaching design vs teaching design theory</b> <b>Chair : Monica Calcagno</b>	
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 31<sup>th</sup> morning**

8:30: ☉ | coffee and breakfast | ☉

**Parallel session**

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

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

☪ 11:30 – 11:45: Coffee break ☪

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

**Tuesday, January 31<sup>th</sup> afternoon**

<b>Session: Design theory and new inspirations</b> <b>Chair : Ehud Kroll</b>		
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 ☉**

<b>Session: Design theory and social sciences</b> <b>Chair : Akin Kazakci</b>		
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 29<sup>th</sup>-30<sup>th</sup> January 2018

**Cocktail for the 10<sup>th</sup> Design Theory  
workshop**

**Wednesday, February 1<sup>st</sup> morning**

**Introduction to design theory**

8:30: ☕ coffee and breakfast ☕

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

Background		
9:30 – 10:30	<ul style="list-style-type: none"><li>• Optimization</li><li>• Search</li><li>• Design as problem solving (Simon)</li></ul>	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"><li>• Theory of technical systems (Hubka and Eder)</li><li>• Systematic design (Pahl and Beitz)</li><li>• Integrated Product Development, (Olsson)</li></ul>	Sandor Vajna (Otto-von-Guericke-Universitaet Magdeburg)

**12:30 – 14:00 Lunch**

**Wednesday, February 1<sup>st</sup> afternoon**

Industrial design - Adornment and wit		
13:00 – 14:30	<ul style="list-style-type: none"> <li>• Wedgewood</li> <li>• Bauhaus - Itten, Klee, Albers (1919-33)</li> <li>• Raymond Loewy (1950)</li> <li>• Post-1970</li> </ul>	Armand Hatchuel (CGS, MINES ParisTech PSL Research Univ)

Formal design theories I		
14:30 – 15:30	<ul style="list-style-type: none"> <li>• General design theory (Yoshikawa)</li> <li>• Axiomatic design (Suh)</li> <li>• Infused design (Shai and Reich)</li> </ul>	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"> <li>• Concept-Knowledge (Hatchuel and Weil)</li> <li>• Imaginative Constructivism (Kazakci)</li> <li>• PSI theory (Subrahmanian and Reich)</li> </ul>	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)	