

PROGRAMME

Global Challenges Science Week

International interdisciplinary days of Grenoble Alpes



3 to 6 June 2019

World Trade Center of Grenoble - France



Credit: Ville Innovante © Pierre Jayet

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The Global Challenges Science Week 2019 is a major event gathering more than 600 French and international scientists, PhD students, experts as well as public and private stakeholders. It is a rich opportunity for sharing the latest research results, debate about transdisciplinary issues, and discuss opportunities to set up new international collaborations to tackle the main 21st century challenges:

- Sustainable planet and society,
- Health, well-being and technology,
- Digital world,
- Understanding and fostering innovation

The programme includes:

- 15 scientific workshops
- 6 interdisciplinary plenary lectures
- 1 evening open to the public with the "Conférence d'Exception" of Gilles Dowek followed by the PhD Thesis Awards 2019 of Grenoble Alpes
- Official launch of the interdisciplinary IA institute "MIAI Grenoble Alpes" (Multidisciplinary Institute in Artificial Intelligence)
- Excellency in Industry-Research partnership (Guest: Charles Wessner, Internationally recognized expert in innovation policy)
- Panel Discussion: Open science & Open access
- Cultural visits: Grenoble Alpes Street Art Fest
- And more...



EXHIBITION - STANDS

Everyday

- 1** Grenoble-Alpes Métropole
- 2** The Tourism Office boutique
- 3** MGEN
- 4** Projet HistoNum
- 5 & 6** Connecting Doctoral Research
- 9** Institut Carnot - Logiciel et Systèmes Intelligents
- 10** Institut Carnot - PolyNat, Eco-conception de matériaux biosourcés performants et innovants
- 23** Leti Cea-Grenoble
- 24** Institut Carnot - Energies du futur
- 25** Univ. Grenoble Alpes Alumni network
- 26** Centre Mersenne - Open Scientific Publishing

CROSS DISCIPLINARY PROGRAMS:

- 18** Risk - Managing risk for a more resilient world
- 19** Performance Lab - Grasping the sensorial
- 20** Eco-SESA - Smart Energies in Districts
- 22** Circular - Designing circular industrial systems for the Industry of the Future

Monday 3 June

- 27** Fostering Science - Forward-Thinking in Research
- CROSS DISCIPLINARY PROGRAMS:
 - 11** Symer - A systems approach to new paradigms in metabolic and epigenetic regulation
 - 12** LIFE (is MaDE of ChoiCes) - Optimizing health trajectories by leveraging social, urban and environmental data
 - 13** Data Institute - How data change science and society
 - 21** NeuroCoG - From neuron to networks, from cognition to social interaction

Tuesday 4 June

- 7 & 8** Connecting Doctoral Research
- 27** UGA Editions
- CROSS DISCIPLINARY PROGRAMS:
 - 11** Cosmetics - Cosmetics at the confluence of beauty and health
 - 12** LIFE (is MaDE of ChoiCes) - Optimizing health trajectories by leveraging social, urban and environmental data
 - 13** Data Institute - How data change science and society
 - 21** NeuroCoG - From neuron to networks, from cognition to social interaction

Wednesday 5 June

- 27** UGA Editions
- CROSS DISCIPLINARY PROGRAMS:
 - 11, 12, 21** Cosmetics - Cosmetics at the confluence of beauty and health
 - 13** NEED for IoT - Anticipate and support sustainable transition in nanoelectronic industry
 - 14, 15, 16, 17** Glyco@Alps - The diversity and complexity of sugars: new molecules & materials for innovation

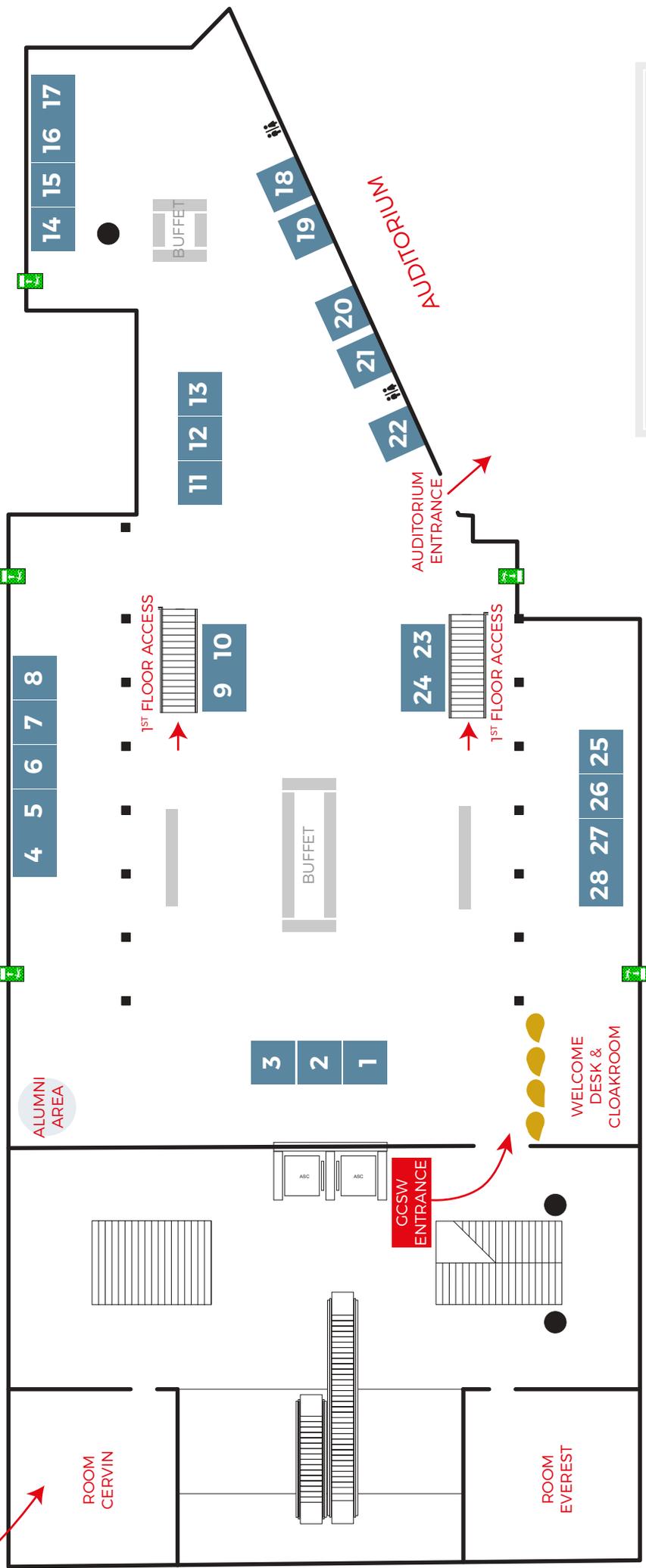
Thursday 6 June

- 7 & 8** Connecting Doctoral Research
- 27** Fostering Science - Forward-Thinking in Research
- 28** Fourier Institute
- CROSS DISCIPLINARY PROGRAMS:
 - 11 & 21** Cosmetics - Cosmetics at the confluence of beauty and health
 - 12** Quantum Engineering - Bringing the second quantum revolution into reality
 - 13** NEED for IoT - Anticipate and support sustainable transition in nanoelectronic industry
 - 14, 15, 16, 17** Glyco@Alps - The diversity and complexity of sugars: new molecules & materials for innovation

↑ ROOM MAKALU
1st floor

↑ ROOM KILIMANDJARO 1 & 2 / 3 & 4
1st floor

MEETING ROOM - Open access



↑ ROOM MONT-BLANC 1 & 2 / 3 & 4
1st floor

 **WIFI**
 WIFI name: **ESPACE-CONGRES**
 Login: **GCSW19**
 Password: **GCSW19**

MONDAY 3 JUNE

Plenary Lectures

.....AUDITORIUM

8:30 - 10am

Some Current Challenges in Science Policy

- **Arthur Bienenstock**, Special Assistant to the President for Federal Research Policy & Associate Director, Wallenberg Research Link - Stanford University

What would it take to build on Mars?

- **Jose E. Andrade**, George W. Housner Professor of Civil and Mechanical Engineering & Cecil and Sally Drinkward Leadership Chair - California Institute of Technology (Caltech)

Coffee break

Workshops

10:30am - 12:30pm

Internet of energy for district communities

Session 1: Interactive building and district communities: Why involvement of end-users of energy is crucial?

.....ROOM MONT-BLANC N°1 & 2

Data Science for the Future

Session 1: Data science applied to Earth, Space, Environmental, and Health Sciences

.....ROOM MONT-BLANC N°3 & 4

Cybersecurity and society: on the necessity of an interdisciplinary approach

Session 1: Sustainable cybersecurity and lifecycle management

.....ROOM KILIMANDJARO N°1 & 2

Environment, aging & future medicine: common challenges for society

Session 1: Metabolism and Epigenetics (*starting at 10am*)

.....ROOM MAKALU

Brain and Cognition

Session 1: Synaptic plasticity

.....AUDITORIUM

Buffet

2 - 4pm

Internet of energy for district communities

Session 2: Energy communities from materials and components to global networks

.....ROOM MONT-BLANC N°1 & 2

Data Science for the Future

Session 2: Accelerating research in Earth Space and Environmental Sciences with Data Science algorithms

.....ROOM MONT-BLANC N°3 & 4

Cybersecurity and society: on the necessity of an interdisciplinary approach

Session 2: Building trust in AI, building trust with AI - part 1

.....ROOM KILIMANDJARO N°1 & 2

Environment, aging & future medicine: common challenges for society

Session 2: LIFE Meeting

.....ROOM MAKALU

Brain and Cognition

Session 2: Brain computer interaction and language

.....AUDITORIUM

Coffee break



4:30 - 6pm

Internet of energy for district communities

Session 3: Panel Discussion: Cross-views of researchers and self-consumption actors *(in French without translation)*

.....ROOM MONT-BLANC N°1 & 2

Cybersecurity and society: on the necessity of an interdisciplinary approach

Session 3: Building trust in AI, building trust with AI - part 2 *(finishing at 5:30pm)*

.....ROOM KILIMANDJARO N°1 & 2

Environment, aging & future medicine: common challenges for society

Session 3: EIT Health Session

.....ROOM MAKALU

Brain and Cognition

Session 3: Cognitive Remediation and Social Cognition

.....AUDITORIUM

End of the workshops

6:15 - 7:45pm

Cultural visits: Grenoble Alpes Street Art Fest

Visit in French & English, please register at the Welcome desk

.....MEETING POINT: WELCOME DESK

Detailed programme:

Internet of energy for district communities.....	16-17
Data Science for the Future.....	18-19
Cybersecurity and society: on the necessity of an interdisciplinary approach.....	20
Environment, aging & future medicine: common challenges for society.....	21-22-23
Brain and Cognition.....	24-25
Cultural visits: Grenoble Alpes Street Art Fest.....	41



TUESDAY 4 JUNE

Plenary Lectures

.....AUDITORIUM

8:30 - 10am

Finding repeating patterns: A key to intelligence in man and machine?

- **Simon Thorpe**, Director of the Toulouse Mind & Brain Institute and Brain & Cognition Research Center (CerCo)

Heritage sciences between nature and culture

- **Etienne Anheim**, Director of studies, Centre de Recherches Historiques - École des Hautes Etudes en Sciences Sociales (EHESS)

Coffee break

Workshops

10:30am - 12:30pm

Trajectories towards sustainable mountain socio-ecosystems

Session 1: Reconstitution of the Past

.....ROOM MONT-BLANC N°1 & 2

Data Science for the Future

Session 3: Data and Digital Humanities

.....ROOM MONT-BLANC N°3 & 4

Cross-views on cultural heritage objects: what methodology?

.....ROOM KILIMANDJARO N°3 & 4

Environment, aging & future medicine: common challenges for society

Session 4: Improvement of air quality

.....ROOM MAKALU

2018 Alliance Campus Rhodanien projects (development of the Franco-Swiss cooperation): results and prospects (starting at 10am)

.....ROOM EVEREST

Brain and Cognition

Session 4: Bio-inspired information processing

.....AUDITORIUM

Buffet

1:15 - 1:45pm

Ice Memory flagship projects by Fondation UGA

.....AUDITORIUM

2 - 4pm

Trajectories towards sustainable mountain socio-ecosystems

Session 2: Past - Present - Future. Observation - Modelling

.....ROOM MONT-BLANC N°1 & 2

Data Science for the Future

Session 4: Data and Digital Humanities

.....ROOM MONT-BLANC N°3 & 4

Cross-views on cultural heritage objects: what methodology?

.....ROOM KILIMANDJARO N°3 & 4

Environment, aging & future medicine: common challenges for society

Session 5: Panel Discussion - Future medicine: an environmental and societal challenge to share with the citizen and patients

.....ROOM MAKALU

Brain and Cognition

Session 5: Neurocognitive architectures for perception and action

.....AUDITORIUM

Coffee break

4:30 - 6pm

Trajectories towards sustainable mountain socio-ecosystems

Session 3: Understanding the present

.....ROOM MONT-BLANC N°1 & 2

Connecting Doctoral Research: meetings between PhD Students and organisations

MagIA diagnostics, STMicronics, FUN-MOOC, SYSTRAN and Emvista

.....ROOM MONT-BLANC N°3 & 4

Cross-views on cultural heritage objects: what methodology?

.....ROOM KILIMANDJARO N°3 & 4

Brain and Cognition

Session 6: Neurocognitive processing of speech and language

.....AUDITORIUM

End of the workshops

6:15 - 7:45pm

Cultural visits: Grenoble Alpes Street Art Fest

Visit in French & English, please register at the Welcome desk

.....MEETING POINT: WELCOME DESK

Detailed programme:

Data Science for the Future.....	18-19
Environment, aging & future medicine: common challenges for society.....	21-22-23
Brain and Cognition.....	24-25
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WEDNESDAY 5 JUNE

Workshops

8:30 - 10am

The skin, a reflection of health and beauty

.....ROOM MONT-BLANC N°1 & 2

Designing circular industrial systems for the Industry of the Future

Session 1: Circular project presentation

.....ROOM MONT-BLANC N°3 & 4

Towards a dynamic and holistic approach to Disaster Risk Reduction

Session 1: Citizen Awareness & Resilience

.....ROOM KILIMANDJARO N°1 & 2

Cross-views on cultural heritage objects: what methodology?

Session 4: Round-table: Academic issue and Heritage - part 1

.....ROOM KILIMANDJARO N°3 & 4

On the future of glycosciences?

Session 1: Natural and Biomimetic Glycocompounds

.....ROOM MAKALU

Panel Discussion: Private Actors' Self-Help in the Cyberspace *(starting at 9am)*

.....ROOM EVEREST

Societal impacts of research on extraterrestrial life and studies on the origin of life

Session 1: Origin of life and search for extraterrestrial life / state of knowledge - part 1

.....AUDITORIUM

Coffee break

10:30am - 12:30pm

The skin, a reflection of health and beauty

.....ROOM MONT-BLANC N°1 & 2

Designing circular industrial systems for the Industry of the Future

Session 2: The worker in the digitalized circular industry & Technologies for agile operative processes

.....ROOM MONT-BLANC N°3 & 4

Towards a dynamic and holistic approach to Disaster Risk Reduction

Session 2: Domino Effects & Emerging Risks

.....ROOM KILIMANDJARO N°1 & 2

Cross-views on cultural heritage objects: what methodology?

Session 5: Round-table: Academic issue and Heritage - part 2

.....ROOM KILIMANDJARO N°3 & 4

On the future of glycosciences?

Session 2: Bioactive Glycomolecules - part 1

.....ROOM MAKALU

Panel Discussion: Private Actors' Self-Help in the Cyberspace

.....ROOM EVEREST

Societal impacts of research on extraterrestrial life and studies on the origin of life

Session 2: Origin of life and search for extraterrestrial life / state of knowledge - part 2

.....AUDITORIUM

Buffet

2 - 4pm

The skin, a reflection of health and beauty *(starting at 1:45pm)*

.....ROOM MONT-BLANC N°1 & 2

Designing circular industrial systems for the Industry of the Future

Session 3: Organisations / incentives for circular industrial systems & illustration on case studies

.....ROOM MONT-BLANC N°3 & 4



2 - 4pm

Towards a dynamic and holistic approach to Disaster Risk Reduction

Session 3: Risk Assessment & Decision-Making

.....ROOM KILIMANDJARO N°1 & 2

On the future of glycosciences?

Session 3: Bioactive Glycomolecules - part 2

.....ROOM MAKALU

Societal impacts of research on extraterrestrial life and studies on the origin of life

Session 3: Societal implications of the discovery of extraterrestrial life and origins / Could there be consequences on our collective psyche? - part 1

.....AUDITORIUM

Coffee break

Evening open to the public

with simultaneous translation

4:30pm "Conférence d'exception" of Gilles Dowek: Some new ethical questions posed by the development of computer science and artificial intelligence

.....AUDITORIUM

- › Gilles Dowek, Professor at ENS Paris-Saclay and researcher at the Institut National de Recherche en Informatique et en Automatique (Inria), Paris

The computer science development and in particular the artificial intelligence development raises very different ethical questions from those posed since Hippocrates by the development of life sciences and medicine. Traditional values, such as respect for privacy, transparency, intelligibility... are to be rethought. The question is emerging of knowing whether a non-human being, such as an algorithm or a robot, can have values. And the most unexpected is that we are led to ask again a question that we thought resolved: how are human beings singular?

6:15pm Institutional speeches

.....AUDITORIUM

6:30pm PhD Thesis Awards 2019 of Grenoble Alpes

.....AUDITORIUM

Thesis awards:

- › **Baptiste Bedessem**, *Which autonomy for scientific research? Epistemological analysis of the conditions of the governance of science* - PPL, Université Grenoble Alpes, Université du Québec à Montréal (double degree)
- › **Marianne Béraud**, *Slaves of slaves. Vicarii and vicariae in the roman world (3rd century BC - 4th AD)* - LUHCIE, Université Grenoble Alpes
- › **David Bouhjiti**, *Probabilistic analysis of cracking and tightness of large Reinforced Concrete structures* - 3SR, CNRS, Université Grenoble Alpes, Grenoble INP Institute of Engineering
- › **Fanny Brun Barrière**, *Impact of the debris cover on High Mountain Asia glacier mass balances: a multi-scale approach* - IGE, CNRS, IRD, Université Grenoble Alpes, Grenoble INP Institute of Engineering
- › **Maria Lukarska**, *Structural and functional characterization of the interaction between influenza polymerase and the cellular transcription machinery* - EMBL Grenoble, CNRS, Université Grenoble Alpes
- › **Camille Morio**, *"L'administré". Essay on a legend of administrative law* - CRJ, Université Grenoble Alpes
- › **Kim Anh Aline Pham**, *Characterization of optical chirality effects in plasmonic systems* - Institut Néel, CNRS, Université Grenoble Alpes, Grenoble INP Institute of Engineering

Innovation Thesis award:

- › **Prakhar Amba**, *Learning methods for digital imaging* - LPNC, CNRS, Université Grenoble Alpes, University of Savoie Mont Blanc

8pm Networking cocktail-dinner

.....ATRIUM

4:30 - 9pm

Detailed programme:

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On the future of glycosciences?.....	36

THURSDAY 6 JUNE

Plenary Lectures

.....AUDITORIUM

8:30 - 10am

Glycobiology, new perspectives for neuroscience

- **Rita Gerardy-Schahn**, Head of Institute of Clinical Biochemistry - Hannover Medical School

How risk science can support decision-making under uncertainty

- **Terje Aven**, Professor of Risk Analysis and Risk Management - University of Stavanger

Coffee break

Workshops

10:30am - 12:30pm

3rd Sustainable IOT Workshop

.....ROOM MONT-BLANC N°1 & 2

Gestural repertoires: moving between the infraordinary, the ordinary and the extraordinary

.....ROOM MONT-BLANC N°3 & 4

3rd Quantum Engineering Day

Session 1: Quantum Software & Quantum Foundations

.....ROOM KILIMANDJARO N°1 & 2

Excellency in Industry-Research partnership

Session 1: 21st Century University industry cooperation: a focus on advancing artificial intelligence

.....ROOM KILIMANDJARO N°3 & 4

On the future of glycosciences?

Session 4: Bioeconomy for Glycoscience

.....ROOM MAKALU

Societal impacts of research on extraterrestrial life and studies on the origin of life

Session 4: Societal implications of the discovery of extraterrestrial life and origins / Could there be consequences on our collective psyche? - part 2

.....AUDITORIUM

Buffet

1 - 2pm

Official launch of the interdisciplinary IA institute "MIAI Grenoble Alpes" (Multidisciplinary Institute in Artificial Intelligence)

.....ROOM KILIMANDJARO N°3 & 4

2 - 4pm

3rd Sustainable IOT Workshop

.....ROOM MONT-BLANC N°1 & 2

Gestural repertoires: moving between the infraordinary, the ordinary and the extraordinary

Geogestures and choreographic cartographies

.....ROOM MONT-BLANC N°3 & 4

3rd Quantum Engineering Day

Session 2: Innovation

.....ROOM KILIMANDJARO N°1 & 2

Excellency in Industry-Research partnership

Session 2: Good practices for successful partnerships between public research and companies
(*provisional title*)

.....ROOM KILIMANDJARO N°3 & 4



2 - 4pm

On the future of glycosciences?
 Session 5: New and Smart Glycomaterials
ROOM MAKALU

Societal impacts of research on extraterrestrial life and studies on the origin of life
 Session 5: Circulation of information
AUDITORIUM

Coffee break

4:30 - 6pm

3rd Sustainable IOT Workshop
ROOM MONT-BLANC N°1 & 2

3rd Quantum Engineering Day
 Session 3: Quantum hardware
ROOM KILIMANDJARO N°1 & 2

Panel Discussion: Open science & Open access (*finishing at 6:30pm - in French without translation*)
ROOM KILIMANDJARO N°3 & 4

On the future of glycosciences?
 Session 6: Virtual and Real Glycotools
ROOM MAKALU

Connecting Doctoral Research: meetings between PhD Students and organisations
 Kaizen, Novadiscovery, MEDIMPRINT, Grenoble-Alpes Métropole and Adocia
ROOM EVEREST

Societal impacts of research on extraterrestrial life and studies on the origin of life
 Session 6: Panel Discussion - Extraterrestrial life and its stories: what is the relationship between science, the media and the imaginary?
AUDITORIUM

End of the workshops

6pm

Networking cocktail
 proposed by The Doctoral College of Grenoble Alpes
ATRIUM

Detailed programme:

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3 rd Sustainable IOT Workshop.....	37
Gestural repertoires: moving between the infraordinary, the ordinary and the extraordinary.....	38
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Panel Discussion: Open science & Open access.....	40



PLENARY SPEAKERS

.....AUDITORIUM



Etienne ANHEIM

Director of studies, Centre de Recherches Historiques - École des Hautes Etudes en Sciences Sociales (EHESS)
Tuesday 4 June | 9:15 - 10:00am | [Heritage sciences between nature and culture](#)

Etienne Anheim, born in 1973, is director of studies at the Ecole des Hautes Etudes en Sciences Sociales (Paris), director of EHESS Edition and vice chair of the Fondation des Sciences du Patrimoine. His researches concern mainly culture and arts history in Europe at the end of the middle age and at the Renaissance period. He works also on the interdisciplinary approach of artistic materiality, in the context of the Laboratory of excellence "Patrimoines matériels" and the major interest area "Matériaux anciens et patrimoniaux". Regular collaborator of Le Monde and

France Culture, he published many scientific articles and books as *Clément VI au travail. Lire, écrire, prêcher au XIV^e siècle* (in 2014) and *Le travail de l'histoire* (in 2018), by Editions de la Sorbonne.



Jose E. ANDRADE

George W. Housner Professor of Civil and Mechanical Engineering & Cecil and Sally Drinkward Leadership Chair - California Institute of Technology (Caltech)
Monday 3 June | 9:15 - 10:00am | [What would it take to build on Mars?](#)

José E. Andrade is a professor of civil and mechanical engineering at the California Institute of Technology, where he holds the George W. Housner professorship and a Cecil and Sally Drinkward Leadership Chair. In January 2016, he became the Executive Officer for Mechanical and Civil Engineering. In 2017, he received the Thomas J.R. Hughes Young Investigator Award. The following year, he was awarded the Walter L. Huber Civil Engineering Research Prize.



Terje AVEN

Professor of Risk Analysis and Risk Management - University of Stavanger

Thursday 6 June | 9:15 - 10:00am | [How risk science can support decision-making under uncertainty](#)

Terje Aven is Professor of Risk Analysis and Risk Management at the University of Stavanger, Norway. He has many years of experience as a risk analyst and consultant in industry, and is the author of many books and papers covering a broad range of risk science topics. He has served as the Chair of the European Safety and Reliability Association (ESRA) and as the President of the Society for Risk Analysis (SRA) worldwide. He is Editor-in-Chief of the Journal of Risk and Reliability, and Associate editor for Risk Analysis.



Arthur BIENENSTOCK

Special Assistant to the President for Federal Research Policy & Associate Director, Wallenberg Research Link - Stanford University

Monday 3 June | 8:30 - 9:15am | [Some Current Challenges in Science Policy](#)

Arthur Bienenstock is Special Assistant to the President of Stanford University for Federal Research Policy & Associate Director, Wallenberg Research Link. He is a former president of the American Physical Society, serving in that role in 2008. He is also the former director (1978-1997) of the Stanford Synchrotron Radiation Lightsource. He was Vice Provost and Dean of Research at Stanford University from 2003 until 2006. He served as Associate Director for Science of the White

House Office of Science and Technology Policy from 11/1997 to 1/2001 and presently serves as a member of the National Science Board, having been appointed by President Obama in 2012.



Gilles DOWEK

Professor at ENS Paris-Saclay and researcher at the Institut National de Recherche en Informatique et en Automatique (Inria), Paris

Wednesday 5 June | 4:30pm - 5:45pm | [Some new ethical questions posed by the development of computer science and artificial intelligence](#)

Gilles Dowek is a researcher at Inria and professeur attaché at the ENS Paris-Saclay. He has conducted research on the relationships between programming languages and mathematical language, on computerised systems for processing mathematical proofs, and on software security, as well as, epistemology and ethics of informatics. He was awarded "Grand Prix" of Philosophy 2007

by the Académie française. He is a member of the Scientific board of the Société informatique de France and of the CERNA, Commission de réflexion sur l'éthique de la recherche en sciences et technologies du numérique d'Allistene, and is particularly committed to the scientific mediation, informatics teaching and its society issues.



Rita GERARDY-SCHAHN

Head of Institute of Clinical Biochemistry - Hannover Medical School

Thursday 6 June | 8:30 - 9:15am | **Glycobiology, new perspectives for neuroscience**

Prof Rita Gerardy-Schahn is the head of the Institute of Clinical Biochemistry, at Hannover Medical School. Her research at the interface of carbohydrate biochemistry and neuroscience unravel the role of sialic acid in the central nervous system. She also conducts an inter-institute project on Polysialic acid: A new scaffold material for nerve transplants.



Simon THORPE

Director of the Toulouse Mind & Brain Institute and Brain & Cognition Research Center (CerCo)

Tuesday 4 June | 8:30 - 9:15am | **Finding repeating patterns: A key to intelligence in man and machine?**

Simon Thorpe's research is a mix of neurophysiology, psychophysics, computer modelling and theoretical work. He is currently half way through a 5 year ERC advanced grant called "The M4 project: Memory Mechanisms in Man and Machine", which aims to understand how we can store sensory memories that can last for an entire lifetime. The main hypothesis is that we store memories in "grandmother cells" that can remain totally silent for months or years - neocortical dark matter. Recruited by the CNRS in 1983, he moved from Paris to Toulouse in 1993 to help create the Brain & Cognition Research Center (CerCo). He became the lab director in 2014, and also took over the direction of the Toulouse Mind & Brain Institute and Brain in January 2016.



Internet of energy for district communities



Summary

Going along auto consumption, Internet of energy is an emerging idea in Europe. Aiming at renewable and fatal energy valorization for district communities, its implementation rises technical development and questions energy economy and governance. Eco-SESA invites to a cross-disciplinary discussion to access a systemic vision and discuss methods and tools allowing the perception of local energy exchanges.

Detailed programme

MONDAY 3 JUNE

.....ROOM MONT-BLANC N°1 & 2

Session 1: Interactive building and district communities: Why involvement of end-users of energy is crucial?

Chairman: Frédéric Wurtz

Introduction: Challenges with Internet of the Energy and auto-consumption by the chairman, Frédéric Wurtz

Towards Intelligent Energy Management Systems

- › Carlos Santo Silva, Assistant Professor at the Mechanical Engineering Department of Instituto Superior Técnico - Technical University of Lisbon

Energy markets, coordination and flexibility at local scale

- › Stéphane Genoud, Professor responsible of energy management - HES-SO Valais/Wallis, Institute for Entrepreneurship & Management

10:30am

12:30pm

Sharing energy in a shared space: defining rules among members of self-consumption collective?

- › Marta Pappalardo, Post-doctoral researcher - Pacte, laboratoire de sciences sociales, Univ. Grenoble Alpes

Persuasive technologies to involve end-users into sobriety and flexibility?

- › Joëlle Coutaz, Professor emeritus - LIG, Univ. Grenoble Alpes

Mirroring actual behaviors and generation of explanations

- › Manar Amayri, Grenoble INP Post-doctoral researcher - G-SCOP, Univ. Grenoble Alpes

A field experiment of households flexibility with nudges

- › Béatrice Roussillon, Lecturer - Faculty of Economics, Univ. Grenoble Alpes

Conclusion of the session

12:30pm -
2pm

Buffet

Session 2: Energy communities from materials and components to global networks

Chairman: Gilles Debizet

Introduction: Scientific challenges for interconnected energy communities by the chairman, Gilles Debizet

Collective self-consumption patterns in European Countries: potentialities and limits

- › Grégoire Wallenborn, Research Professor at the Center for Sustainable Development Studies - Institute for Environmental Management and Land-use Planning

2pm

4pm

Micro-Storage for internet of objects: state of the arts and visions

- › Albert Tarancón, ICREA Professor and Head of Nanoionics and Fuel Cells at IREC - Catalonia Institute for Energy Research (IREC), Universitat de Barcelona

Electrochemical conversion and storage at building/district scales: technologies and issues

- › Marian Chatenet, Grenoble INP Research Professor - LEPMI, Univ. Grenoble Alpes

Techno-economic planning and real-time collective self-consumption

- › Jesus Contreras Ocaña, Grenoble INP Post-doctoral researcher - G2Elab, Univ. Grenoble Alpes

2pm
-
4pm

Regulation, urban project and multi-stakeholder tool for collective self-consumption: crossing approaches between sociology, urban planning and engineering

- › Silvère Tribout, Assistant Professor in urbanism and geography - Pacte, laboratoire de sciences sociales, Univ. Grenoble Alpes
- › Thibaut Fonteneau, PhD Student - Pacte, laboratoire de sciences sociales, Univ. Grenoble Alpes
- › Lou Morriet, Grenoble INP PhD Student - G2Elab and Pacte, laboratoire de sciences sociales, Univ. Grenoble Alpes

Conclusion of the session

4pm -
4:30pm

Coffee break

4:30pm
-
6pm

Session 3: Panel Discussion: Cross-views of researchers and self-consumption actors *(in French without translation)*

Chairman: Daniel Llerena

- › **Luc Jourdan**, Board member
- › **François Borghese**, Microgrid Marketing Director - Schneider Electric
- › **Arnaud Jacques**, Project Manager - Arkolia Energies
- › **Luc Jourdan**, Board member - Centrales Villageoises NGO
- › Local authority representative
- › Energy National Regulator representative



Data Science for the Future

Summary

Life, earth and spatial sciences as well as humanities are impacted by the flood of digital data that is generated by technological advances. The two sessions of the workshop will be devoted, on the one hand, to the presentation of original data science methods applied to geophysical, spatial and biological data and, on the other hand, to the challenges raised by the data in digital humanities.

Detailed programme

MONDAY 3 JUNE

.....ROOM MONT-BLANC N°3 & 4

Session 1: Data science applied to Earth, Space, Environmental, and Health Sciences

Chairman: Michaël Blum

10:30am
-
12:30pm

10:30 - 11:15 Data challenges for accelerating the uptake of Data Science in disciplinary fields

- › Carlos Gomez, Junior researcher - Univ. Grenoble Alpes
- › Magali Richard, CNRS Research Associate - TIMC-IMAG, Univ. Grenoble Alpes

11h15 - 12h30 Posters of projects funded by Grenoble Alpes Data Institute

12:30pm -
2pm

Buffet

Session 2: Accelerating research in Earth Space and Environmental Sciences with Data Science algorithms

Chairman: Julien Le Sommer

2pm
-
4pm

2:00 - 2:30 Data assimilation as a deep learning tool to uncover the dynamics of models

- › Marc Bocquet, Senior researcher and deputy director - CEREIA, Ecole des Ponts ParisTech and EDF R&D

2:30 - 2:50 Academic Data Science, reflections and lessons learn

- › Carlos Gomez, Junior researcher - Univ. Grenoble Alpes

2:50 - 3:10 Deep Learning for the Processing of Hyperspectral Data: Over a Decade of History

- › Jocelyn Chanussot, Professor and researcher - GIPSA-lab, Univ. Grenoble Alpes

3:10 - 3:30 Physical Oceanography meets Deep Learning: Forecasting Ocean Variables

- › Redouane Lguensat, Post-doctoral researcher - IGE, Univ. Grenoble Alpes

3:30 -3:50 Identification and filtering of the chaotic ocean variability by Machine Learning

- › Thierry Penduff, Research Scientist in physical oceanography - CNRS



TUESDAY 4 JUNE

.....ROOM MONT-BLANC N°3 & 4

Session 3: Data and Digital Humanities

Chairwoman: Lucie Albaret

10:30am
-
12:30pm

Producing Social, Sciences and Humanities Data

- › Thomas Lebarbé, Professor - Litt&Arts, Univ. Grenoble Alpes
- › Célia Marion, Engineer assistant - Univ. Grenoble Alpes
- › Patrick Guillou, First web developer - Univ. Grenoble Alpes
- › Sylvain Hatier, New web developer - Univ. Grenoble Alpes
- › Elisabeth Greslou, UGA Research Engineer - Litt&Arts, Univ. Grenoble Alpes
- › Anne Garcia-Fernandez, CNRS Research Engineer - Litt&Arts, Univ. Grenoble Alpes
- › Arnaud Bey, UGA Engineer - Litt&Arts, Univ. Grenoble Alpes

Exploiting Social, Sciences and Humanities research data

- › Marine Riguet, Junior researcher - LabEx OBVIL (Observatoire de la vie littéraire), Sorbonne University, Paris

12:30pm -
2pm

Buffet

Session 4: Data and Digital Humanities

Chairman: Thomas Lebarbé

2pm
-
4pm

Digital History Research Team

- › Francesco Beretta, CNRS Research Fellow - LARHRA, Univ. Grenoble Alpes, University of Lyon
- › Vincent Alamercery, Engineer - LARHRA, Univ. Grenoble Alpes, University of Lyon

Social, Sciences and Humanities datas and legal aspects

- › Emilie Masson, Data Protection Officer - GDPR (General Data Protection Regulation), CNRS



Cybersecurity and society: on the necessity of an interdisciplinary approach



Cybersecurity Institute
Univ. Grenoble Alpes

Summary

Although the solution to the issue of cybersecurity has long been considered only from a technical point of view, the recent multiplication of incidents across the world has brought out a complex ecosystem of states and private actors with sometimes different incentives as well as the need for people to draft a set of laws and regulations matching the specificity of cyberspace.

The goal of this workshop is to emphasize the necessity of an interdisciplinary approach to cybersecurity through three research topics of the Cybersecurity Institute: the concept of sustainable cybersecurity, the relationships between AI and trust and finally the issue of hack-back by private actors.

Detailed programme

MONDAY 3 JUNE

.....ROOM KILIMANDJARO N°1 & 2

10:30am

Session 1: Sustainable cybersecurity and lifecycle management

Chairman: Romain Xu-Darme

12:30pm

- › Lilian Bossuet, Professor of University and head of the Embedded System Security and Hardware Architecture group - University Jean Monnet, Hubert Curien Laboratory
- › Guy Gogniat, Professor in ECE - Université Bretagne Sud

12:30pm -
2pm

Buffet

2pm

Session 2: Building trust in AI, building trust with AI

Chairmen: Daniel Le Métayer, Claude Castelluccia, Patrick Loiseau and Oana Goga

Challenges in making social media advertising more transparent

- › Oana Goga, Researcher - LIG, Univ. Grenoble Alpes

On Machine-Aided Human Decision Making

- › Krisna Gummadi - MPI, Saarbrücken

A survey of methods for explaining black box models (*provisional title*)

- › Dino Pedreschi, Professor of Computer Science - University of Pisa

4pm

Legibility of AI in the GDPR and other legal safeguards in the EU Member States

- › Gianclaudio Malgieri, Attorney at Law, Doctoral researcher - Free University of Brussels

Understanding algorithmic decision-making: Opportunities and challenges (study for the European Parliament)

- › Claude Castelluccia, Research Director - Inria - Grenoble Rhône-Alpes
- › Daniel Le Métayer, Research Director - Inria - Grenoble Rhône-Alpes

Panel Discussion: Interdisciplinary panel on explainability

Chairmen: Marc Clément and Daniel Le Métayer

- › When should explainability be a requirement for algorithmic decision systems ?
- › Can explainability justify a loss of accuracy ?
- › What kind of explanations ? Intended for whom ?
- › What is a good explanation ? How to assess their quality ?

Environment, aging & future medicine: common challenges for society



Summary

Metabolism and Epigenetics

"Information carrying" metabolites seem to play a central role for regulating epigenetics, the reprogramming of genetic information by chemical modification of DNA and histones, finally leading to altered gene expression. This new concept has important and far-reaching consequences for human society, since the general public now foresees, for the first time, the impact of the environment, life style, health and social conditions on the human genome, an effect that appears to be fuelled by changes in metabolism and that might impact several generations. It may well represent a missing link in many otherwise unrelated pathologies, including the global threat of rapidly spreading metabolic diseases. In the frame of a multi-scale approach of the Idex CDP SYMER to tackle this complex problem, the workshop will present experimental strategies and tools in biology and mathematical modeling.

LIFE Meeting

The proportion of patients with at least two co-occurrent (or multimorbid) chronic diseases (MCD) – such as heart disease, diabetes, obstructive sleep apnea (OSA), liver diseases including Non-Alcoholic Fatty Liver Disease (NAFLD) and lower respiratory diseases including Chronic Obstructive Pulmonary Disease (COPD) – is increasing with age and is over 50% of patients aged 50. The healthcare burden is over 80% of global health costs. Multimorbid chronic diseases tend to cluster and evolve over time, defining temporal trajectories of diseases during which patients may consecutively experience multiple pathologies. Cancer often occurs as an integral part of such MCD trajectories, including in particular cancers of the lung or the liver, which share common etiological risk factors with many MCDs. These trajectories can be curbed by actionable factors – such as weight, sleep quality and circadian re-alignment, reduction of dietary or recreational exposure to toxic agents, hypoxia and physical activity – towards health improvement. However, a number of factors largely escape individual control and are driven by wider societal and environmental contexts. These factors include access to care, urban design, exposure to pollution, and social inequalities.

The LIFE meeting will review the progresses made in our interdisciplinary program to tackle the challenges towards an innovative understanding of physical, biological, social, anthropological and environmental factors, focused on the patients' health, and a healthy ageing.

Improvement of air quality

Urban air pollution is a major public health issue in both North and South countries. MobilAir, in a fundamentally interdisciplinary approach, aims to identify specific measures to significantly reduce urban air pollution and its impacts. Building on the disciplinary richness of the Grenoble campus, MobilAir is developing an integrated approach in the Grenoble urban area, a relevant pilot area. MobilAir aims to develop methods and tools that can be applied in other cities in France or abroad.

The presentations will focus on:

- 1) Research aimed at a new characterization of the population's exposure to pollution through the oxidative potential of particulate matter.
- 2) An innovative and interdisciplinary population-based intervention between geographers, psychologists, transport and health economists, sociologists and epidemiologists aimed at understanding the levers for sustaining changes in mobility towards active mobility (walking or cycling). The challenge is to understand the role of contextual (location of activities, urban planning, etc.) and psychological (perception, intention, altruism, social norms, etc.) factors, beyond the dimensions of transport cost and time, in individual mobility choices.
- 3) Support for public decision-making through the development of an interdisciplinary tool for evaluating urban policies to reduce pollution on mobility, traffic, the environment, health and the economy. The research also includes the development of a reverse modeling tool that aims to identify public measures on traffic and heating to achieve a given health objective.

EIT Health Session

EIT Health is a network of best-in-class health innovators backed by the EU. We deliver solutions to enable European citizens to live longer, healthier lives by promoting innovation. We connect the right people and the right topics across European borders, so that innovation can happen at the intersection of research, education and business – for the benefit of citizens.



Detailed programme

MONDAY 3 JUNE

.....ROOM MAKALU

<p>10am - 12:30pm</p>	<p>Session 1: Metabolism and Epigenetics</p> <p>10:00 - 10:45 by Saadi Khochbin, Senior Research Scientist, Head of "Signaling and Chromatin" department - IAB, Univ. Grenoble Alpes</p> <p>10:45 - 11:30 by Hidde de Jong, Senior Research Scientist - Inria - Grenoble Rhône-Alpes</p> <p>11:30 - 12:00 by Daniel Jost, CNRS Research Associate - TIMC-IMAG, Univ. Grenoble Alpes / LBMC, ENS Lyon</p> <p>12:00 - 12:30 by Uwe Schlattner, Professor - Director of LBFA, Univ. Grenoble Alpes</p>
<p>12:30pm - 2pm</p>	<p>Buffet</p>
<p>2pm - 4pm</p>	<p>Session 2: LIFE Meeting</p> <p>2:00 - 2:30 LIFE's Project Introduction – Patients are at the heart of LIFE</p> <ul style="list-style-type: none"> › Jean-Louis Pépin, Head of the Clinic of Physiology, Sleep and Exercise department, Scientific Director of Clinical Research Administration and presides the Research Division - Grenoble University Hospital <p>2:30 - 2:50 The data of patients' trajectories</p> <ul style="list-style-type: none"> › Behrooz Omidvar-Tehrani, Post-doctoral researcher in Computer Science - Univ. Grenoble Alpes › Mai Thai Son, Lecturer in Cyber-Physical Systems at the Department of Electronics and Computer Science (ECS) - University of Southampton › Sihem Amer-Yahia, Director of research - LIG, Univ. Grenoble Alpes <p>2:50 - 3:10 The biology of patients</p> <ul style="list-style-type: none"> › Sophie Rousseaux, French Institute of Health and Medical Research - Inserm › Saadi Khochbin, Senior Research Scientist, Head of «Signaling and Chromatin» department - IAB, Univ. Grenoble Alpes <p>3:10 - 3:30 The environment of patients: the exposome approach</p> <ul style="list-style-type: none"> › Alicia Guillien, Post-doctoral researcher in respiratory epidemiology - IAB, Univ. Grenoble Alpes › Valérie Siroux, Respiratory epidemiologist - IAB, Univ. Grenoble Alpes, Inserm <p>3:30 - 4:00 LIFE's Future challenges & Discussion</p> <ul style="list-style-type: none"> › Jean-Louis Pépin, Head of the Clinic of Physiology, Sleep and Exercise department, Scientific Director of Clinical Research Administration and presides the Research Division - Grenoble University Hospital
<p>4pm - 4:30pm</p>	<p>Coffee break</p>
<p>4:30pm - 6pm</p>	<p>Session 3: EIT Health Session</p> <p>4:30 - 4:45 EIT Health in Grenoble: a success story for innovation and research & SEB: a successful partnership</p> <ul style="list-style-type: none"> › Jean-Louis Pépin, Head of the Clinic of Physiology, Sleep and Exercise department, Scientific Director of Clinical Research Administration and presides the Research Division - Grenoble University Hospital › Christophe Moinard - LBFA, Univ. Grenoble Alpes › SEB representative <p>4:45 - 5:10 Co-creation with patients and health providers</p> <ul style="list-style-type: none"> › Joan Escarabill, MD, PhD Director Chronic Care Program - Hospital Clínic (Barcelona) <p>5:10 - 5:17 POLLAR</p> <ul style="list-style-type: none"> › Marie Joyeux-Faure - HP2 laboratory, Univ. Grenoble Alpes › Ingrid Jullian-Desayes, Post-doctoral researcher - HP2 laboratory, Univ. Grenoble Alpes <p>5:17 - 5:24 Sensapnea</p> <ul style="list-style-type: none"> › Jean-Louis Pépin, Head of the Clinic of Physiology, Sleep and Exercise department, Scientific Director of Clinical Research Administration and presides the Research Division - Grenoble University Hospital <p>5:24 - 5:32 Cook2Health</p> <ul style="list-style-type: none"> › Christophe Moinard - LBFA, Univ. Grenoble Alpes



4:30pm
-

5:32 - 5:40 VIP Room - Virtual reality for oPerating Room: the room of success

- › Caroline Landelle - TIMC-IMAG, Univ. Grenoble Alpes

6pm

5:40 - 6:00 EIT Health and future medicine

- › Jean Marc Bourez, Managing Director EIT Health France

TUESDAY 4 JUNE

.....ROOM MAKALU

Session 4: Improvement of air quality

10:30am

Particulate air pollution

- › Jean-Luc Jaffrezo, CNRS Senior researcher - IGE, Univ. Grenoble Alpes

12:30pm

Development of an intervention to change mobility behaviour

- › Aïna Chalabaev, Associate Professor and Head of the SENS laboratory - Univ. Grenoble Alpes

Identification of public policies allowing to reach a public health target by acting on atmospheric pollution sources

- › Rémy Slama, Inserm Senior investigator - IAB, Univ. Grenoble Alpes

12:30pm -
2pm

Buffet

Session 5: Panel Discussion - Future medicine: an environmental and societal challenge to share with the citizen and patients

2:00 - 2:15 Introduction - The university as a way to address this challenge

2:15 - 3:45 Endocrine disruptors

- › Rémy Slama, Inserm Senior investigator - IAB, Univ. Grenoble Alpes
- › Claire Phillipat, PhD student - MIND Institute (Medical Investigation of Neurodevelopmental Disorders)

2pm

How to improve healthcare access

- › Héléna Revil, Sciences Po Grenoble - Pacte, laboratoire de sciences sociales, Univ. Grenoble Alpes
- › Phillipe Warin, CNRS - Pacte, laboratoire de sciences sociales, Univ. Grenoble Alpes

4pm

Shared projects to improve the healthcare system

- › Joan Escarabill, MD, PhD Director Chronic Care Program - Hospital Clínic (Barcelona)

Sleep, health and society

- › Jean-Louis Pépin, Head of the Clinic of Physiology, Sleep and Exercise department, Scientific Director of Clinical Research Administration and presides the Research Division - Grenoble University Hospital

Public policies and urbanism

- › Stéphane Sadoux, Deputy Director - AE&CC, Univ. Grenoble Alpes

3:45 - 4:00 Conclusion

- › Jean-Louis Pépin, Head of the Clinic of Physiology, Sleep and Exercise department, Scientific Director of Clinical Research Administration and presides the Research Division - Grenoble University Hospital



Summary

The Brain and Cognition community organizes since 2017 around an interdisciplinary program called NeuroCoG. These two sessions showcase two major research topics in Grenoble: cognitive and translational neuroscience in Grenoble with the June 3rd workshop "Brain plasticity and neurorehabilitation", and cognition and artificial intelligence with the June 4th workshop "From Brain and Cognition to Artificial Intelligence".

Detailed programme

MONDAY 3 JUNE

.....AUDITORIUM

Session 1: Synaptic plasticity

Chairman: Frédéric Saudou

10:30 - 10:45 Introduction

- › Frédéric Saudou, Professor - Director of the Grenoble Institute of Neuroscience (GIN), Univ. Grenoble Alpes

10:30am

10:45 - 11:20 Super-resolution imaging of neural structure and function

- › Valentin Närgel, Professor of Neuroscience and Bio-imaging - Interdisciplinary Institute for NeuroScience, University of Bordeaux

-

12:30pm

11:20 - 11:55 The needs of a synapse - how local organelles serve synaptic function

- › Mickael Kreutz, Professor - Center for Molecular Neurobiology (ZMNH), Hamburg

11:55 - 12:30 Autophagy is required to enhance cognition and integrate the effects of youthful systemic factors in the aged brain

- › Franck Oury, Professor - Institut Necker Enfants Malades (INEM), Université Paris Descartes

12:30pm -
2pm

Buffet

Session 2: Brain computer interaction and language

Chairwoman: Monica Baciu

2:00 - 2:15 Introduction

- › Monica Baciu, Professor - LPNC, Univ. Grenoble Alpes

2pm

2:15 - 2:50 The sensorimotor side of speech perception

- › Alessandro d'Ausilio, Professor - University of Ferrara

-

4pm

2:50 - 3:25 Neuroplasticity associated with an efficient fluency-shaping stuttering therapy

- › Christian Kell, Neurologist - Brain Imaging Center, Frankfurt

3:25 - 4:00 Neurotechnologies for speech rehabilitation

- › Blaise Yvert, Inserm Research Director - Univ. Grenoble Alpes

4pm -
4:30pm

Coffee break

Session 3: Cognitive Remediation and Social Cognition

Chairwoman: Céline Baeyens

4:30 - 4:45 Introduction

- › Céline Baeyens, Professor - LIP/PC2S, Univ. Grenoble Alpes

4:30pm

4:45 - 5:20 Representations of actions and their embedded awareness in the human brain

- › Angela Sirigu, Research Director and Director of the Institute of Cognitive Science Marc Jeannerod - University of Lyon

-

6pm

5:20 - 5:55 Cognitive remediation and recovery (in French with translation)

- › Nicolas Franck, Clinical Professor - CHU Lyon, Centre Le Vinatier



TUESDAY 4 JUNE

.....AUDITORIUM

Session 4: Bio-inspired information processing

Chairman: Martial Mermillod

10:30am
-
12:30pm**10:30 - 10:45 Introduction**

- › Martial Mermillod, Professor - LPNC, Univ. Grenoble Alpes

10:45 - 11:20 Is the study of machine learning distracting for neurosciences

- › Michel Dojat, Inserm Research Director - Univ. Grenoble Alpes

11:20 - 11:55 Is the study of human intelligence "distracting" for artificial intelligence?

- › Martial Mermillod, Professor - LPNC, Univ. Grenoble Alpes

11:55 - 12:30 Embedded Hardware Architectures for AI

- › Lorena Anghel, Professor - TIMA, Univ. Grenoble Alpes

12:30pm -
2pm

Buffet

Session 5: Neurocognitive architectures for perception and action

Chairwoman: Sophie Achard

2pm
-
4pm**2:00 - 2:15 Introduction**

- › Sophie Achard, Research Director - GIPSA-lab, Univ. Grenoble Alpes

2:15 - 2:50 The hippocampo-cortical loop: implication in spatial processing and social interaction

- › Philippe Gaussier, Professor of Artificial Intelligence and robotics - ETIS, Cergy-Pontoise University

2:50 - 3:25 Bayes from cell to chip

- › Pierre Bessière, Research Director - Institute for Intelligent Systems and Robotics (ISIR), Paris

3:25 - 4:00 Graph Signal Processing: an interpretable framework to link neurocognitive architectures with brain activity

- › Nicolas Farrugia, Associate Professor - IMT Atlantique

4pm -
4:30pm

Coffee break

Session 6: Neurocognitive processing of speech and language

Chairman: Jean-Luc Schwartz

4:30pm
-
6pm**4:30 - 4:45 Introduction**

- › Jean-Luc Schwartz, Responsable of the Pôle Grenoble Cognition and Principal Investigator of the ERC project Speech Unit(e)s - GIPSA-lab, Univ. Grenoble Alpes

4:45 - 5:20 Speech processing with and without neural oscillations

- › Anne-Lise Giraud, Professor - Biotech Campus, University of Geneva

5:20 - 5:55 Bayesian Algorithmic Modeling of speech perception and production: the COSMO model

- › Julien Diard, CNRS Researcher - LPNC, Univ. Grenoble Alpes



Trajectories towards sustainable mountain socio-ecosystems



Summary

Mountain regions are especially vulnerable to the effects of global change, and particularly of climate change. In the Alps, the effects are already significant: while temperatures are on the rise, snow cover and glaciers decreases significantly... Changes will necessarily continue at least until 2030-2050. Beyond 2050, everything depends on the greenhouse gas emission pathways chosen by societies worldwide. These changes have and will have an impact on natural environments as well as on human activities.

In this context, Trajectories aims at improving our understanding of the interactions between human societies and their environment in the Alpine regions. Three pilot territories are selected: the Arve Valley, the Maurienne Valley and the Meije region. Trajectories explores temporal pathways in order to help territories adapt better. The main objectives are to observe and to understand dynamics since 1850 in order to better anticipate changes.

The workshop will compare the findings of three major international witnesses with a focus on three topics: 1) reconstruction of the past, 2) tools for reconstruction and simulation and 3) scenario development.

Detailed programme

TUESDAY 4 JUNE

.....ROOM MONT-BLANC N°1 & 2

10:30 - 10:45 Introduction of the Project Trajectories

- › Sandrine Anquetin, Research Director - Deputy director IGE, Univ. Grenoble Alpes
- › Nicolas Buclet, Professor - Pacte, laboratoire des sciences sociales, Univ. Grenoble Alpes
- › Sandra Lavorel, Research Director - LECA, Univ. Grenoble Alpes

Session 1: Reconstitution of the Past

Chairwoman: Charline Giguet-Covex

10:30am

10:45 - 11:30 Resolving past vegetation trajectories in and around the Alps to assess future ecosystem dynamics under global change conditions

- › Willy Tinner, Head of Paleoecology section - Institute of Plant Sciences, University of Bern

-

12:30pm

11:30 - 12:00 A socio-ecological system trajectorie in the French Alps (Savoie, Maurienne) since 1815, from lake record and historical archives

- › Claire Blanchet, PhD student - EDYTEM, University of Savoie Mont Blanc, Univ. Grenoble Alpes
- › Raphaël Lachello, PhD student - LARHRA, Univ. Grenoble Alpes

12:00 - 12:30 Discussion lead by Charline Giguet-Covex - EDYTEM, University of Savoie Mont Blanc, Univ. Grenoble Alpes

12:30pm -
2pm

Buffet

Session 2: Past – Present – Future. Observation - Modelling

Chairwoman: Sandrine Anquetin

2:00 - 2:30 Variability and change of the Alpine climate: modelling approach over the XXth and the XXIth centuries

- › Martin Menegoz, CNRS Research Scientist - IGE, Univ. Grenoble Alpes

2pm

2:30 - 3:00 Interoperability and multi-disciplinarity

- › Danielle Ziebelin, Professor - LIG, Univ. Grenoble Alpes

-

4pm

3:00 - 3:45 The challenges of structuring environmental data. From national to European levels

- › Isabelle Braud, Research Director - Irstea, UR RiverLy, Lyon

3:45 - 4:00 Discussion lead by Samuel Morin - Météo France-CEN



4pm -
4:30pm

Coffee break

Session 3: Understanding the present

Chairwoman: Sandra Lavorel

4:30pm
-
6pm

4:30 - 5:15 Local to global perspectives of mountains as sentinels of change and examples of resilience & transformation

- › Julia Klein, Research Scientist - Natural Resource Ecology Laboratory, Colorado State University

5:15 - 5:45 A participatory process to understand ecosystem-based adaptation to climate change in a mountain socio-ecological system

- › Enora Bruley, PhD student - LECA, Univ. Grenoble Alpes

5:45 - 6:00 Discussion lead by Sandra Lavorel - LECA, Univ. Grenoble Alpes



Cross-views on cultural heritage objects: what methodology?



Summary

Cultural Heritage Science provides a renewed interdisciplinary framework for humanities, materials, environmental and computer sciences. This workshop gathers French and international teams who implement such interdisciplinarity projects. Methodological questions will be addressed through a dialogue between disciplines, and focusing on various case studies covering a vast period from Prehistory to the beginning of modern times.

Open to all communities interested in Cultural Heritage Science and in the practice of interdisciplinarity in research (academic staff, heritage stakeholders, students, and the general public), this workshop questions the current issues linked to the development of Heritage Science.

Detailed programme

TUESDAY 4 JUNE

.....ROOM KILIMANDJARO N°3 & 4

Chairwoman: Pauline Martinetto

10:30 - 10:45 Introduction and presentation of Patrimalp

- › Laurence Rivière, History of Mediaeval Art Professor - LUHCIE, Univ. Grenoble Alpes
- › Pauline Martinetto, Associate professor - Institut Néel, Univ. Grenoble Alpes
- › Emilie Chalmin - EDYTEM, University of Savoie Mont Blanc, Univ. Grenoble Alpes

10:30am
-
12:30pm

10:50 - 11:40 Contributions of the archaeo-geomorphological approach in the study of ornate sites. Example of the Nawarla Gabarnmang and Borologa sites (Australia)

- › Jean-Jacques Delannoy, Professor, Geomorphologist, archaeogeomorphologist - Centre of Excellence for Australian Biodiversity and Heritage, University of Savoie Mont Blanc
- › Jean-Michel Geneste, Archaeologist, Archaeology Field Director and Research Coordinator Chauvet team research - Centre National de Préhistoire, Ministère de la Culture and University of Bordeaux 1
- › Bruno David

11:40 - 12:30 New insight on artistic practices from Ancient Egypt with chemical analysis and 3D imaging

- › Philippe Walter, Head of Laboratory of Molecular and Structural Archaeology - Laboratory of Molecular and Structural Archaeology (LAMS), Sorbonne Université, Paris
- › Philippe Martinez, Research engineer & Egyptologist - CNRS, Laboratory of Molecular and Structural Archaeology (LAMS), Sorbonne Université, Paris

12:30pm -
2pm

Buffet

Chairman: Nicolas Holzschuch

2:00 - 3:00 CoL&Mon. Colleges and Monasteries from carolingian Reform to Council of Trent

- › Noëlle Deflou-Leca, Assistant Professor in Medieval History - Laboratoire d'Etude sur les Monothéismes, Centre Européen de Recherche sur les Communautés, Congrégations et Ordres Religieux
- › Thierry Joliveau, Geography Professor - University of Jean Monnet
- › Héléne Mathian, Research engineer in Environment, City and Society - CNRS

2pm
-
4pm

3:00 - 4:00 Gilt Leathers: Recent Studies and Investigation Methods On Some Historical Decors

- › Céline Bonnot-Diconne, Leather conservator, accredited by the French Museums, and ancient fellow at the French Academy in Roma (Villa Médicis) - Leather Conservation Centre
- › Marie Radeport, Researcher Engineer, material physico-chemist - Centre de Recherche sur la Conservation

4pm -
4:30pm

Coffee break



Chairwoman: Emilie Chalmin

4:30pm - 6pm

4:30 - 5:30 Digitisation of works of art and digital anachronisms

- › Jean-Claude Chirollet, Senior lecturer-HDR Emeritus in philosophy - Strasbourg University

5:30 - 6:00 Conclusion

WEDNESDAY 5 JUNE

.....ROOM KILIMANDJARO N°3 & 4

8:30am - 10am

Session 4: Panel discussion - Academic issue and Heritage - part 1

Chairwoman: Laurence Rivière

Which structure(s)?

- › Pascal Lievaux, Conservateur général du patrimoine, Chef du département du pilotage de la recherche et de la politique scientifique - Ministère de la Culture et de la Communication, Direction générale des patrimoines

10am - 10:30am Coffee break

10:30am - 12:30pm

Session 5: Panel discussion - Academic issue and Heritage - part 2

Chairwoman: Laurence Rivière

Which training(s)?

- › François-Xavier Le Bourdonnec - Department of Art History and Archaeology, University of Bordeaux Montaigne



The skin, a reflection of health and beauty



Cosmethics
Univ. Grenoble Alpes

Summary

The workshop organized by CDP Cosmethics will address the issue of skin in an interdisciplinary way because it is the most visible marker of human appearance.

Smooth, withered, white, tanned..., through the skin the body is revealed and conveys, according to social and cultural norms, the complex relationships that men and women maintain with their bodies, their health and their beauty, via the use of cosmetics.

Detailed programme

WEDNESDAY 5 JUNE

.....ROOM MONT-BLANC N°1 & 2

8:30am	<p>Chairmen: Pr Jean-Claude Beani and Dr Cocaul</p> <p>8:30 - 9:00 Introduction</p> <ul style="list-style-type: none"> › Anne-Marie Granet-Abisset, Professor of contemporary history - LARHRA, Univ. Grenoble Alpes <p>9:00 - 9:45 Tanning at all costs: a public health issue</p> <ul style="list-style-type: none"> › Jean-François Doré, Inserm Professor emeritus research director - Univ. Grenoble Alpes <p>9:50 - 10:00 Presentation of PhD students' work</p>
10am	
10am - 10:30am	Coffee break
10:30am	<p>Chairmen: Pr Jean-Claude Beani and Dr Cocaul</p> <p>10:35 - 11:20 Progress in researching skin pigmentation, what impact for cosmetics?</p> <ul style="list-style-type: none"> › Thierry Passeron, Professor - Dermatology department of Nice University Hospital <p>11:25 - 12:10 Understanding conscious and nonconscious motivations for white skin. The case of young Thai women</p> <ul style="list-style-type: none"> › Caroline Cuny, Professor of Marketing - Grenoble École Management (GEM) <p>12:10 - 12:30 Presentation of PhD students' work</p>
12:30pm	
12:30pm - 1:45pm	Buffet
1:45pm	<p>Chairmen: Gilles Boëtsch and O. Damour</p> <p>1:45 - 2:30 A century of confrontation with the sun (1919-2019): feedback on a "cultural revolution"</p> <ul style="list-style-type: none"> › Pascal Ory, Professor emeritus of contemporary history - University of Paris 1 Panthéon-Sorbonne <p>2:35 - 3:05 The cosmetic valley: between science and industry, how to develop the "French brand" in a major innovative sector</p> <ul style="list-style-type: none"> › Christophe Masson, CEO of Cosmetic Valley <p>3:10 - 4:00 Demonstrations</p> <p>How to produce a cream? A Fab Lab by students of Dermocosmetics Degree</p> <ul style="list-style-type: none"> › By Professional licence of dermocosmetics students <p>A Skin Bio-Printer, how does it work?</p> <ul style="list-style-type: none"> › Walid Rachidi, Vice Dean Pharmacy Faculty - INAC - Cea-Grenoble, Univ. Grenoble Alpes <p>Cosmetics products. This is not a game!</p> <ul style="list-style-type: none"> › Benjamin Coulomb & Simon Chupin, PhD - LARHRA, Univ. Grenoble Alpes
4pm	

Designing circular industrial systems for the Industry of the Future



Summary

Circular industrial systems transform post-used products into new added-value products: companies can thus provide market-ready, competitive, customised and last-generation solutions, while minimizing the use of material and energy resources. This workshop will center on new technologies and how they can create those new industrial systems, with a specific focus on human-machine collaboration, the implementation of the numerical solutions, and the design and implementation of the new organizations required by those systems.

Detailed programme

WEDNESDAY 5 JUNE

.....ROOM MONT-BLANC N°3 & 4

8:30am - 10am	<p>Session 1: Circular project presentation Chairwoman: Peggy Zwolinski</p> <ul style="list-style-type: none"> › Peggy Zwolinski, Grenoble INP Full professor and Head of the Grenoble Alpes Circular Project - G-SCOP, Univ. Grenoble Alpes › PhD candidates
10am - 10:30am	Coffee break
10:30am - 12:30pm	<p>Session 2: The worker in the digitalized circular industry Chairwoman: Aurélie Landry</p> <ul style="list-style-type: none"> › Jean-Claude Sagot, Professor in charge of ERCOS consortium - Université de Technologie Belfort-Montbéliard › Flore Barcellini, Full Professor in ergonomics - Research Center on Work and Development, CNAM <p>Session 3: Technologies for agile operative processes Chairman: Olivier Aycard</p> <ul style="list-style-type: none"> › Marco F. Huber, Full Professor - Fraunhofer Institute for Manufacturing Engineering and Automation IPA
12:30pm - 2pm	Buffet
2pm - 4pm	<p>Session 4: Organisations / incentives for circular industrial systems Chairman: Pierre-Xavier Thivel</p> <ul style="list-style-type: none"> › Helen Micheaux, Post-doctoral researcher - Mines ParisTech Graduate School <p>Session 5: Illustration on case studies Chairwoman: Valérie Rocchi</p> <ul style="list-style-type: none"> › Pierrick Rogues, Project leader methods and industrialization - ARaymond › Alexandre Morais, Head of the department - AFNOR X35 Commission, Ergonomics



Towards a dynamic and holistic approach to Disaster Risk Reduction



Summary

Climate change and densification of urban areas strongly increase disaster risk, so that the development of resilience capabilities becomes crucial. The workshop will focus on risk modelling, together with some innovative approaches regarding citizen awareness, assessment and decision-making for disaster risk reduction.

Detailed programme

WEDNESDAY 5 JUNE

.....ROOM KILIMANDJARO N°1 & 2

8:30am - 10am	<p>Session 1: Citizen Awareness & Resilience Chairwoman: Sandrine Caroly</p> <p>8:30 - 9:00 Citizen-awareness in Seismology › Rémy Bossu, Seismologist and head of the European-Mediterranean Seismological Centre - Euro-Med Seismological Centre</p> <p>9:00 - 9:30 Culture against disasters. Feasible, useful? Protecting cultural landscapes and traditional built up techniques as prevention/mitigation of natural disasters › Ferruccio Ferrigni - University of Naples</p> <p>9:30 - 10:00 Integrated approaches in Natech risk analysis: hazards, vulnerability, risks and resilience › Ahmed Mebarki, Professor of Civil Engineering & Risk Management - University Paris-Est Marne-la-Vallée</p>
10am - 10:30am	Coffee break
10:30am - 12:30pm	<p>10:30 - 11:00 Agent-based modelling of natural risks: opportunities for understanding crises and raising awareness › Elise Beck, Associate Professor of Geography - Pacte, laboratoire de sciences sociales, Univ. Grenoble Alpes</p> <p>Session 2: Domino Effects & Emerging Risks Chairman: Denis Jongmans</p> <p>11:00 - 11:30 Major Accidents involving Domino Effects and Interaction of Technological Risk with Natural Hazards › Valerio Cozzani, Professor of Chemical Engineering and Director of the M.Sc. programs in Offshore Engineering - Laboratory of Industrial Safety and Environmental Sustainability (DICAM), University of Bologna</p> <p>11:30 - 12:00 Archeoseismology as a key interdisciplinary approach for risk characterization (South America and France) › Laurence Audin, Earth science researcher specialized in natural hazards - ISTerre, Univ. Grenoble Alpes</p> <p>12:00 - 12:30 Enhanced permafrost creep rate on mountain slopes: an emerging risk? › Reynald Delaloye, Professor of Geosciences - University of Freiburg</p>
12:30pm - 2pm	Buffet
2pm - 4pm	<p>Session 3: Risk Assessment & Decision-Making Chairman: Didier Georges</p> <p>2:00 - 2:30 Scientific advances and challenges in risk assessment and management › Terje Aven, Professor of Risk Analysis and Risk Management - University of Stavanger</p> <p>2:30 - 3:00 Imperfect knowledge management, information fusion applied to risk assessment & decision-making › Jean Dezert, Senior researcher - ONERA, Palaiseau</p> <p>3:00 - 3:30 Engineering Resilience of Interdependent Energy Infrastructures › Giovanni Sansavini, Professor of Reliability & Risk Engineering - ETH Zurich Risk Center</p> <p>3:30 - 4:00 Does crop insurance lead to a better financial and environmental situation? Evidence from French farms › Geoffroy Enjolras, Professor of finance and head of the department in audit-accounting-control-finance - Grenoble IAE, the Graduate School of Management of Univ. Grenoble-Alpes, CERAG</p>

Panel Discussion: Private Actors' Self-Help in the Cyberspace



Summary

Facing a dramatic increase in cyber-attacks, the private sector has developed a broad range of cyber-security capabilities and services, from digital infrastructure security measures to active cyber defense and hack-back. Think Tanks, especially with an Anglo-Saxon background, have argued that active cyber-defense measures taken by the private sector should be accepted and put in place. However, arguments that tend to praise the role of the private sector in this regard reflect a genuine distrust against state actors which are considered to be either unwilling or unable to defend the private sector. According to Carnegie Endowment for International Peace the security of the private sector today is a matter of "self-help", namely "a private actor's actions taken to protect its assets without recourse to the law enforcement". These initiatives that question the respective roles of the State and of the private actors in the management of cyber threats are in contrast with more cautious approaches, such as that of the recent Paris Call for Trust & Security in Cyberspace, which asks that steps be taken "to prevent non-State actors, including the private sector, from hacking-back, for their own purposes or those of other non-State actors". The objective of this panel is to address different issues raised by Active Cyber Defense and the theory of "self-help" and to question how to build a new and efficient partnership between public and private actors in order to reach a sustainable and acceptable level of cybersecurity.

Detailed programme

WEDNESDAY 5 JUNE

.....ROOM EVEREST

Panel Discussion: Private Actors' Self-Help in the Cyberspace
 Chairmen: Karine Bannelier and Théodore Christakis

Panelists:

- › **Wyatt Hoffman**, Senior research analyst with the Nuclear Policy Program and the Cyber Policy Initiative at the Carnegie Endowment for International Peace
- › **Laurent Bernat**, Policy analyst at the Digital Economy Policy Division - Organisation for Economic Co-operation and Development (OECD)
- › **Yuval Shany**, Professor of International law, Chair of the United Nations Human Rights Committee and Deputy president of the Israel Democracy Institute - Hebrew University of Jerusalem
- › **Nicholas Tsagourias**, Professor of International Law and director of the Sheffield Centre for International and European Law - University of Sheffield
- › **Karine Bannelier**, Deputy Director & Social Sciences Coordinator of the Cybersecurity Institute and Associate Professor in International Law - CESICE, Univ. Grenoble Alpes
- › **Théodore Christakis**, Professor of International Law and Director of the Centre for International Security and European Studies - CESICE, Univ. Grenoble Alpes
- › **Nimrod Karin**, Research fellow at the Federmann cyber security center - Cyber law program of the Hebrew University of Jerusalem
- › **Alexandre Magloire** - National Cybersecurity Agency of France (ANSSI)

9am
-

12:30pm



Societal impacts of research on extraterrestrial life and studies on the origin of life



Summary

Understanding how life has emerged on Earth and searching for life elsewhere in the Universe are amongst the major challenges of modern science. For centuries, philosophers and thinkers could only dream of answering these questions, which can now be tackled scientifically, with tremendous societal and philosophical impacts.

During this workshop we want to cross the views on these impacts by bringing together scientists, sociologists, philosophers, media specialists, journalists, managers of scientific cultural centers, authors of fiction works, etc. The focus of the debate will be to assess how the understanding of our earliest origins and the possible discovery of extraterrestrial life would influence our thoughts.

Detailed programme

WEDNESDAY 5 JUNE

.....AUDITORIUM

8:30am - 10am	<p>Session 1: Origin of life and search for extraterrestrial life / state of knowledge - part 1 Chairman: Olivier Bastien</p> <p>8:30 - 8:40 Welcome › Xavier Delfosse, Astronomer - IPAG, Univ. Grenoble Alpes</p> <p>8:40 - 9:20 Review of theories on the origin of life on Earth (<i>provisional title</i>) › Juan-Carlos Fontecilla, Cea Researcher - IBS, Univ. Grenoble Alpes</p> <p>9:20 - 10:00 Are there green critters on Mars? › Alexandre Simionovici, UGA Researcher - ISTerre, Univ. Grenoble Alpes</p>
10am - 10:30am	Coffee break
10:30am - 12:30pm	<p>Session 2: Origin of life and search for extraterrestrial life / state of knowledge - part 2 Chairman: Olivier Bastien</p> <p>10:30 - 11:05 What can we learn from future space missions about the habitability of icy moons? › Véronique Vuitton, CNRS Researcher - IPAG, Univ. Grenoble Alpes</p> <p>11:05 - 11:40 Habitability of extra-solar planets and the ability to search for life › Xavier Delfosse, Astronomer - IPAG, Univ. Grenoble Alpes</p> <p>11:40 - 12:30 Exploration? exploitation? and colonization? › Michel Viso - CNES</p>
12:30pm - 2pm	Buffet
2pm - 4pm	<p>Session 3: Societal implications of the discovery of extraterrestrial life and origins / Could there be consequences on our collective psyche? - part 1 Chairwoman: Catherine Gauthier</p> <p>2:00 - 3:00 Who's there? When the extraterrestrial issue challenges our certainties about the world and about ourselves › Jacques Arnould - CNES</p> <p>3:00 - 4:00 Panel Discussion: Announce the discovery of extraterrestrial life to the "general public" Chairwoman: Catherine Gauthier</p> <p>Panelists:</p> <ul style="list-style-type: none"> › Olivier Bastien, INRA Researcher - BIG, Univ. Grenoble Alpes › Jacques Arnould - CNES › Michel Viso - CNES › and other to be confirmed

THURSDAY 6 JUNE

.....AUDITORIUM

10:30am

-

12:30pm

Session 4: Societal implications of the discovery of extraterrestrial life and origins / Could there be consequences on our collective psyche? - part 2

Chairman: Xavier Delfosse

10:30 - 11:30 The point of view of François-Xavier de Peretti, Philosopher - Aix-Marseille University
(provisional title)

11:30 - 12:30 The point of view of David Morrin Ullman, Sociologist - Nice (provisional title)

12:30pm -

2pm

Buffet

2pm

-

4pm

Session 5: Circulation of information

Chairman: Philippe Delorme

2:00 - 2:45 The origins of life and extraterrestrial life in pictures: from television to youtube (1959 - 2018)

- › Guylaine Guéraud-Pinet - GRESEC, Univ. Grenoble Alpes
- › Benoît Lafon, Full Professor of Communication Sciences and Deputy Director of GRESEC - Univ. Grenoble Alpes

2:45 - 3:15 Exobiology on the front page (the post-2000 magazine press)

- › Benoît Lafon, Full Professor of Communication Sciences and Deputy Director of GRESEC - Univ. Grenoble Alpes
- › Robin Gaillard, Student - GRESEC, Univ. Grenoble Alpes

3:15 - 4:00 How television news tells us about extraterrestrial life (from the 60's to today)

- › Jean-Stéphane Carnel - GRESEC, Univ. Grenoble Alpes

4pm -

4:30pm

Coffee break

4:30pm

-

6pm

Session 6: Panel Discussion - Extraterrestrial life and its stories: what is the relationship between science, the media and the imaginary?

Chairman: Benoît Lafon

Panelists:

- › **Frédéric Llop**, Journalist at France3 Rhône-Alpes and science fiction writer
- › **David Fossé**, Deputy Editor-in-Chief of Ciel & Espace
- › **Etienne Ledolley**, Youtuber - "Le Sense Of Wonder"
- › **Cédric Simon**, Comic author at Glénat
- › **Eric Stalner**, Comic author at Glénat
- › and other to be confirmed



On the future of glycosciences?



Summary

Carbohydrates are biomolecules with a fascinating structural diversity and complexity. The workshop will explore their future application in the domains of biopharmaceuticals, medical diagnostics, personalized medicine, materials, environmental sustainability and innovative bio-industry.

Detailed programme

WEDNESDAY 5 JUNE

.....ROOM MAKALU

8:30am -10am	Session 1: Natural and Biomimetic Glycocompounds Chairwoman: Christine Chirat › Silvia Vignolini, Doctor and Group leader - University of Cambridge
10am - 10:30am	Coffee break
10:30am -12:30pm	Session 2: Bioactive Glycomolecules - part 1 Chairman: Romain Vivès › Antonio Molinaro, Professor - University of Napoli Federico II
12:30pm - 2pm	Buffet
2pm -4pm	Session 3: Bioactive Glycomolecules - part 2 Chairwoman: Anne Imberty › Christoph Rademacher, Doctor and Group leader - Max Planck Institute of Colloids and Interfaces

THURSDAY 6 JUNE

.....ROOM MAKALU

10:30am -12:30pm	Session 4: Bioeconomy for Glycoscience Chairwoman: Maud Rio › Rodney Townsend, Board Member responsible for business strategy of SusChem and Managing Partner - GnosTek
12:30pm - 2pm	Buffet
2pm -4pm	Session 5: New and Smart Glycomaterials Chairman: Laurent Heux › Bjorn Christensen, Professor in the Department of Biotechnology and Food Science - Norwegian University of Science and Technology, Trondheim
4pm - 4:30pm	Coffee break
4:30pm -6pm	Session 6: Virtual and Real Glycotools Chairwoman: Aurélie Bouchet-Spinelli › Frédérique Lisacek, Doctor and Group leader - Swiss Institute of Bioinformatics, Geneva



3rd Sustainable IOT Workshop



NEED for IoT
Univ. Grenoble Alpes

Summary

Since billions of electronic objects are being disseminated all over the world in our homes, buildings, cars, medical devices, roads, etc., it is obviously a major concern to revisit the economic, technological, and societal models to develop a sustainable electronic industry that will care about its impact from the early design stages to the final consumption of these objects.

A sustainable use of rare raw materials in the emerging devices for the Internet of Things (IoT) is a major geopolitical stake for the 21st century. Some key elements used today will probably have to be drastically substituted or saved. It is therefore urgent to involve the stakeholders of the micro-electronics value chain to develop methods and tools to better integrate the needs and concerns of both consumers and companies.

Detailed programme

THURSDAY 6 JUNE

.....ROOM MONT-BLANC N°1 & 2

<p>10:30am - 12:30pm</p>	<p>Chairwoman: Karine Samuel</p> <p>10:30 - 11:05 No digital society without sustainable information technology</p> <ul style="list-style-type: none"> › Jean-Pierre Raskin, Professor at Louvain School of Engineering - Institute of Information and Communication Technologies, Electronics and Applied Mathematics (ICTEAM), Université Catholique de Louvain <p>11:05 - 11:40 Electronics Recycling and its challenges – An end refiner’s perspective</p> <ul style="list-style-type: none"> › Géraldine Morelle, Assistant Manager Market Intelligence & Business Research - Umicore <p>11:40 - 12:15 Critical raw materials and ICT equipment, an operator perspective</p> <ul style="list-style-type: none"> › Samuli Vaija, Life Cycle Analyst - Orange <p>12:15 - 12:30 PhD students – session 1</p>
<p>12:30pm - 2pm</p>	<p>Buffet</p>
<p>2pm - 4pm</p>	<p>Chairwoman: Blandine Ageron</p> <p>2:00 - 2:35 Rare Earths Elements: Price Dynamics and Geographical Concentration</p> <ul style="list-style-type: none"> › Jean-François Carpentier, Associate Professor - FEC, CERGAM, Aix-Marseille University <p>2:35 - 3:10 Cost modelling for Fan-Out Panel Level Packaging</p> <ul style="list-style-type: none"> › Mathilde Billaud, Research scientist - Fraunhofer Institut, Department Environmental and Reliability Engineering <p>3:10 - 3:45 Preserve and protect, new challenges for infrared detection technologies</p> <ul style="list-style-type: none"> › Pierre Jenouvrier, Chief Technical Officer - SOFRADIR & ULIS, Grenoble <p>3:45 - 4:00 PhD students – session 2</p>
<p>4pm - 4:30pm</p>	<p>Coffee break</p>
<p>4:30pm - 6pm</p>	<p>Chairman: Thierry Baron</p> <p>4:30 - 5:05 Increasing risks for the access to raw materials sustaining the "green" economy</p> <ul style="list-style-type: none"> › Gaëtan Lefebvre, Mineral resources economist - BRGM, French Geological Survey <p>5:05 - 5:40 Sustainable Technology: a life cycle approach to make ICs greener and more responsible</p> <ul style="list-style-type: none"> › Pascal Roquet, Corporate Environment & Health programs Senior Manager - STMicroelectronics <p>5:40 - 6:00 PhD students – session 3</p>



Gestural repertoires: moving between the infraordinary, the ordinary and the extraordinary



Performance Lab
Univ. Grenoble Alpes

Summary

Body-data is not only gathered technologically but through gestural sharing, re-enactment, role playing, contamination, and migration transpiring through micro movements of the body to macro movements of the environment. By interweaving choreographic and geographic approaches to movement, place and space we aim to better understand the ways in which scalarity can be used to read the categories of the infraordinary (difficult to perceive), the ordinary (daily habits) and the extraordinary (finely skilled) repertoires of gesture. These categories will be read through different disciplinary lenses that include non-representational geography (Derek McCormack), dance studies (Alexandra Kolb), body-culture criticism (Lucia Ruprecht) and performance studies (Jen Harvie).

Detailed programme

THURSDAY 6 JUNE

.....ROOM MONT-BLANC N°3 & 4

Session 1: Gestural repertoires: moving between the infraordinary, the ordinary and the extraordinary

Chairwomen: Gretchen Schiller and Anne-Laure Amilhat Szary

10:30 - 10:45 Opening of the workshop

- › Gretchen Schiller, Researcher in choreography and UGA Professor - Litt&Arts, Univ. Grenoble Alpes
- › Anne-Laure Amilhat Szary - Pacte, laboratoire de sciences sociales, Univ. Grenoble Alpes

10:45 - 11:15 Scalarity

- › Derek McCormack, Professor of Cultural Geography and Member of the Technological Life: Environments, Bodies, Mobilities research Cluster - University of Oxford

11:15 - 11:45 Gestural imaginations

- › Lucia Ruprecht, College Teaching Officer and Director of Studies in Modern and Medieval Languages - Emmanuel College, University of Cambridge

11:45 - 12:15 Everyday gestures

- › Alexandra Kolb, Professor of Dance - University of Roehampton, London

12:15 - 12:30 Closure of the workshop

- › Gretchen Schiller, Researcher in choreography and UGA Professor - Litt&Arts, Univ. Grenoble Alpes

12:30pm -
2pm

Buffet

2pm

4pm

Session 2: Geogestures and choreographic cartographies

Chairwomen: Gretchen Schiller and Anne-Laure Amilhat Szary

- › Jen Harvie, Professor of Contemporary Theatre and Performance - Queen Mary University, London
- › Gretchen Schiller, Researcher in choreography and UGA Professor - Litt&Arts, Univ. Grenoble Alpes
- › Anne-Laure Amilhat Szary - Pacte, laboratoire de sciences sociales, Univ. Grenoble Alpes



Summary

Quantum Engineering Grenoble has the ambition to foster an ecosystem for quantum technologies that will connect various areas of knowledge and human activity, from quantum physics to computer sciences and humanities, from blue sky research to innovation and industry. Our goal is to build on the most counter-intuitive aspects of quantum physics to create existence and develop new technologies. Our third Quantum Engineering Day will provide an overview on our targeted goals and recent achievements at the quantum physics/philosophy, quantum physics/computer science and academy/industry interface.

Detailed programme

THURSDAY 6 JUNE

.....ROOM KILIMANDJARO N°1 & 2

<p>10:30am - 12:30pm</p>	<p>Chairman: Cyril Branciard</p> <p>Session 1: Quantum Software</p> <ul style="list-style-type: none"> › Hui Khoon Ng, Assistant Professor - Center for Quantum Technologies, Yale National University of Singapore › Cyril Allouche, Head of the Atos Quantum R&D Program - Atos <p>Quantum Foundations</p> <ul style="list-style-type: none"> › Vincent Lam, Chaire of Excellence of QuENG, SNSF Assistant Professor - University of Bern › Laurie Letertre, Chaire of Excellence of QuENG, PhD student - Univ. Grenoble Alpes
<p>12:30pm - 2:45pm</p>	<p>Buffet & Posters</p>
<p>2:45pm - 4pm</p>	<p>Session 2: Innovation Chairman: Thierry Chanelière</p> <p>2:45 - 3:10 by Ségolène Olivier, R&D project leader - Leti/DOPT - Cea-Grenoble</p> <p>3:10 - 3:35 by Félix Bussièrès, R&D Manager - ID Quantique (Switzerland)</p> <p>3:35 - 4:00 by Alexander Stark, Co-founder of Qnami (Switzerland)</p>
<p>4pm - 4:30pm</p>	<p>Coffee break</p>
<p>4:30pm - 6pm</p>	<p>Session 3: Quantum hardware Chairwoman: Maud Vinet</p> <p>4:30 - 5:10 by Romain Maurand - INAC - Cea-Grenoble, Univ. Grenoble Alpes</p> <p>5:10 - 5:35 by Christopher Bäuerle, CNRS Researcher - Institut Néel, Univ. Grenoble Alpes</p> <p>5:35 - 6:00 by Olivier Buisson, CNRS Researcher - Institut Néel, Univ. Grenoble Alpes</p>



Panel Discussion: Open science & Open access

Summary

Global challenges make it ever more important to make science widely accessible - both the process of research through citizen science, and the outcomes of research: data, results and publications.

The model of academic publishing thus lies at the heart of the promise of open science. However, today, whereas science is largely funded by tax-payer money, it remains too difficult both for scientists and citizens to access to its results because of high subscriptions costs and access fees.

This roundtable gathers scientists and professionals of academic publishing to debate ways to revise the century-old model of scientific publishing and turn the promise of open science into reality.

Detailed programme

THURSDAY 6 JUNE

.....ROOM KILIMANDJARO N°3 & 4

Chairwoman: Lise Dumasy
Facilitator: Bart Van Tiggelen

Panelists:

4:30pm
-
6:30pm

- › **Grégory Colcanap**, National Coordinator from Couperin, Director of Evry University Library (France)
- › **Marin Dacos**, CNRS Innovation medal (2016), Founder of the Center for open electronic publishing (Cléo), Scientific advisor for Open Science at the French Ministry of Research and Innovation (France)
- › **Liam Earney**, Director Of Licensing at Jisc Collections (England)
- › **Harald Reichert**, Director of Research in Physical Sciences at the European Synchrotron Radiation Facility (ESRF) (France)
- › **Bernard Rentier**, President of Enabling Open Scholarship (EOS), Expert at the European University Association (EUA), Instigator of the institutional archive ORBI in University of Liège (Belgium)
- › **Sylvie Rousset**, Director of Scientific and Technical Information department (DIST) at CNRS (France)

This Panel Discussion is organized by:

- › **Lise Dumasy** (Chairwoman), President of Couperin Consortium and President of University Community Grenoble Alpes
- › **Bart Van Tiggelen** (Facilitator), CNRS Research Professor (Laboratory LPMMC, CNRS, UGA) and President of the Publications Commission at the French Physical Society (SFP)
- › **Olivier Fruchart**, Research Professor and Deputy Director at SPINTEC Laboratory (CEA, CNRS, UGA)
- › **Lucie Albaret**, Duty Manager at the Direction of Research Services of Université Grenoble Alpes Library
- › **Livia Stahl**, Legal officer at the Direction of Research Services, Department of Open science policy (UGA)





CULTURAL VISITS: GRENOBLE ALPES STREET ART FEST!

Spacejunk Grenoble is pleased to announce the fifth edition of the Grenoble Alps Street Art Festival. This is the largest festival of its kind in Europe, with a full month of new artworks, exhibitions, guided tours, meet-ups, conferences, workshops, unveilings, innovations, projections, concerts and much more.

The objective is to extend the reach of street art, spreading it from the center of the Alps to the whole world by presenting it in all its many forms. The program includes large-scale murals, traditional graffiti, collages, stencils, urban sculpture, installations, photography, anamorphic studio works, digital street art... and of course exhibitions.

Focusing mainly on the production of new murals in public spaces, the Grenoble Alps Street Art Festival produces more than 50 works each year where artists are invited to demonstrate their talents.

Building on the success of the first four editions, the 2019 Street Art Festival has set its sights even higher. For this 5th edition, which takes place from 31 May to 30 June, it is consolidating its metropolitan dimension by extending beyond Grenoble to the surrounding areas such as Fontaine, Saint-Martin-d'Hères, Le Pont de Claix, and Echirolles. Events will also take place on the university campus thanks to the participation of its major stakeholders: CROUS, which oversees student facilities, Université Grenoble Alpes, and the Grenoble University Hospital.

As in previous years, to create the new artworks the festival will call upon artists who are either local (Ekis & Boye, Tawos, Groek, Cobie, Petite Poissone), national (Mantra, Veks Van Hillk, Softwix), or international (Bezt, Robert Proch, Augustine Kofie, Li Hill, 1010).

This year's festival will also feature US artist Shepard Fairey (OBEY), who will be on site from June 11 to 14, to create a large-scale mural in Grenoble and present the biggest ever exhibition of his work – a retrospective spanning his 30-year career, with more than 600 works in the Ancien Musée de Peinture, Place de Verdun. This exceptional exhibition will run until 27 October 2019.

It will also be the 3rd edition of the Street Art MOVIE Festival with three evenings of free live screenings (from May 30 to June 2, Place du Jardin de Ville, Grenoble) to open the festival. Six categories of films will be featured.

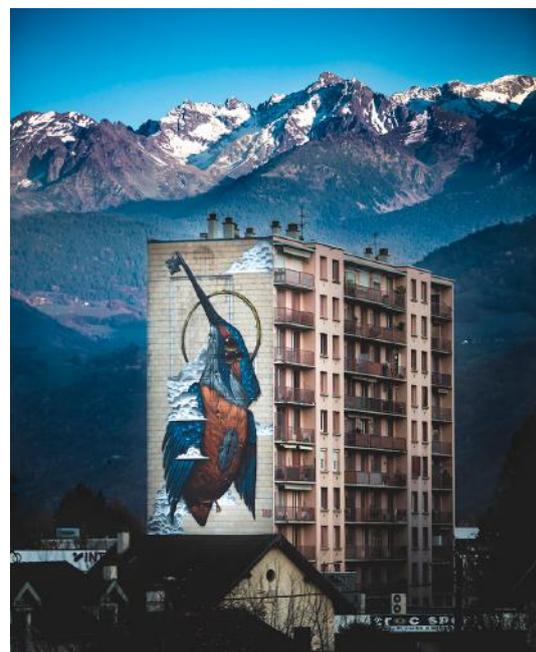
As for digital innovations, Digital Street Art will be showcased from 6 to 30 June in the prestigious Salle Galilée in the center of Grenoble. This will be a unique opportunity to discover and try out the technological and digital innovations invented by artists who are also research engineers. Be warned – this workshop could be extremely addictive!

To round off this year's festival, a new cultural sporting event is also scheduled – Street Art Run! Two circuits will lead walkers and runners through the artworks, with the itinerary punctuated by live events. Participants can try either a 4km or 9m circuit with start times throughout the day. With no timed runs, it's a great way to discover new places and have fun!

The 2019 festival brief:

- › 1 month of events (from May 31 to June 30, 2019)
- › 40 new artworks that will be added to the 136 murals already up
- › 50 participating artists (muralists, graffiti artists, stencil artists, wheatpaste artists, etc.)
- › 10 exhibitions as part of the festival
- › 4 towns taking part: Grenoble, Fontaine, Saint-Martin-d'Hères, Le Pont de Claix
- › 6 Grenoble neighborhoods taking part: Berriat-Saint-Bruno, Championnet, L'île Verte, Capuche, Hyper Centre, Teisseire
- › 1 Film festival dedicated to Street Art: 3rd edition of the Street Art MOVIE Festival
- › 1 Digital Festival
- › 5 Street Art Runs (1 main + 4 training runs)
- › 1 mobile artwork on a tramcar

For all the latest information and news on the Festival, follow us on: www.streetartfest.org and on the various social networks.



NOTES:

A series of horizontal dotted lines for writing notes.



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