

**UM6P  
SCIENCE  
WEEK**



12 — 16 February 2024  
**TRANSITION(S)**

**AGENDA**

01

# MONDAY

## 12 FEBRUARY 2024

09:30 — 09:40

### OPENING SESSION: WHY A SCIENCE WEEK?

**Fouad Laroui**, Professor of Epistemology

09:40 — 09:50

### PROGRAM PRESENTATION

**Saad A. Tazi**, Head of mission

09:50 — 10:00

### WELCOME WORD

**Hicham El Habti**, President of UM6P

10:00 — 10:30

### TRANSITIONS

**Raphaël Llogier**, Professor, Scientific Director of the Institute for Advanced Studies, UM6P

10:30 — 11:00

### OFFICIALS SPEACHES

11:00 — 12:00

### MIND IN TRANSITION

**Daniel Dennett**, Philosopher, Austin B. Fletcher Professor at Tufts University, Massachusetts

12:00 — 13:00

### BOOTH VISIT

Robotics village, Solidarity village, Schools booths

13:00 — 14:00: Lunch

14:15 — 15:15

### WHY CRYSTALS WILL SAVE THE WORLD

**Mike Zawortko**, Professor, Université de California Santa Barbara

15:30 — 17:15

### CLIMATE CHANGE INTELINKAGE

**Wahid Mellouki**, Research director, Head of IWRI  
**Ravishankara Ravi**, Professor in the Departments of Chemistry and Atmospheric Sciences at Colorado State University  
**Guy Brasseur**, Nobel laureate, Director at the Max Planck Institute for meteorology  
**Paolo Laj**, Senior scientist at Université-Grenoble-Alpes (France) and visiting professor at University of Helsinki  
**Kenza Khomsi**, Climate, Air Quality & Environmental Health expert

17:15 — 18:15

### INTRODUCTION TO NO-NONSENSE SUSTAINABLE ENERGYA

**Gilles Spenlehauser**, Former R&D Director of Pfizer and L'Oreal companies  
**Mohamed Zaki**, Engineer – Economist, board member of UM6P VENTURES

02

# TUESDAY

## 13 FEBRUARY 2024

09:00 — 13:00

### YOUNG MOROCCANS ON TOP OF THE AI WORLD

09:00 — 09:15

#### AI IN TRANSITION: INTRODUCTION

09:15 — 10:45

#### AI IN TRANSITION: (1<sup>ST</sup> SESSION)

**AI for Drug Discovery**, **Léna Néhale Ezzine**, PhD Student (MILA)

**AI for Solar Irradiance**, **Ghait Koukachab**, PhD Student (Viden)

**AI for Weather Forecasting**, **Oussama Boussif**, PhD Student (MILA)

**On-line Decision Making**, **Benomar Zyad** (ENSAE)

10:45 — 11:15: Break

11:15 — 12:45

#### AI IN TRANSITION: (2<sup>ND</sup> SESSION)

**Uncertainty in Machine Learning**, **Salem Lahlou**, PhD Student (MILA)

**Perception Learning**, **Hamza Keurti** (ETHZ)

**Trustworthy Learning**, **Youssef Allouah**, PhD Student (EPFL)

**Reinforcement Learning**, **Yassir Jedra**, PhD Student (MIT)

13:00 — 14:00: Lunch

14:15 — 15:00

### ALIENS, A FANTASY OR THE FUTURE OF HUMANITY

**Avi Loeb**, Professor of Science at Harvard University, Director of the Institute for Theory and Computation at the Center for Astrophysics.

### TRACK A

15:15 — 16:45

#### Transition towards Digital in Education

**Abderrahmane Benrherbal**, Teacher-researcher in didactics of mathematics and pedagogy, UM6P

**Ilham Laaziz**, Director of the Engineering Project at the Ministry of Education

**Rafik Alami**, Head of DICE, UM6P

17:00 — 18:00

#### Systemic Collective Action Learning for Transitions: An Experimental Lab

**Fode Beaudet**, CPI Center for Public Impact

### TRACK B

14:00 — 15:30

#### UM6P COLLEGE OF COMPUTING: RESEARCH

**Similarity Search for Scalable Data Science**, **Ilias Azizi** (UM6P CC)

**Energy Efficient Machine Learning**, **Karim Boubouh** (UM6P CC)

**Robust Distributed Learning**, **Amine Boussetta** (UM6P CC)

**Data-driven Program Verification**, **Wael Boutglay** (UM6P CC)

**Radar Systems**, **Mamady Delamou** (UM6P CC)

**Encrypted Search Algorithms**, **Abdelkarim Kati** (UM6P CC)

**Robust Distributed Computing**, **Mouna Safir** (UM6P CC)

**Security and Privacy in the Cloud**, **Abdulsalam Yunusa** (UM6P CC)

15:30 — 16:00: Break

16h — 16h30

#### UM6P COLLEGE OF COMPUTING: ENGINEERING

**Why choose the UM6P CC**, **Rahali Imane** (UM6P CC)

**The Curriculum of a CS Engineer at UM6P**, **Youss Ayman** (UM6P CC)

16:30 — 17:00

#### OPEN DISCUSSION

18:00 — 20:00

### WORLD PREMIERE, SCREENING OF "ALTER EGO" ON THE TRANSITION OF CLONING

**Luc Hardy**, French-American Tech entrepreneur and angel investor, explorer and environmental advocate  
 In conversation with the director **Luc Hardy**

# WEDNESDAY 14 FEBRUARY 2024

## TRACK A

09:00 — 10:30

### COLLECTIVE CHALLENGES FACED BY POPULATIONS UNDERGOING SOCIOECONOMIC TRANSITIONS

**Michael Gurven**, Professor, Université de California Santa Barbara

**Zachary Garfield**, Professor of Behavioral Science, UM6P

**Sarah Alami**, Professor, SCI, UM6P

Moderator: **Asmaa Maaroufi**, PhD student, UM6P

10:45 — 13:00

### GAME THEORY

**Rida Laraki**, Professor, Game theory center, UM6P

### NORM TRANSITIONS AND TIPPING POINTS

**Peyton Young**, James Meade Professor of Economics Emeritus at the University of Oxford

### TRANSITION TO THE SOCIAL CONTRACT

**Karl Sigmund**, Professor of Mathematics at the University of Vienna

### TRANSITIONS & STRATEGIES

**Sylvain Sorin**, Professor at the University of Paris VI

Discussion: **Sarah Alami**, Professor, SCI, UM6P

**Edmond Seabright**, Professor, School of Collective Intelligence, UM6P

**Zachary Garfield**, Professor of Behavioral Science, UM6P

13:00 — 14:00: Lunch

14h15 — 15h15

### HELP AND YOU WILL BE HELPED - GAME THEORY AND THE NEW SCIENCE OF REPUTATION

**Karl Sigmund**, Professor of Mathematics at the University of Vienna

## TRACK A

16:00 — 17:00

### TAKING CARE OF THE SOIL

**Joann Whalen**, College of Agriculture and Environmental Sciences, UM6P

**Mostafa Benzaazoua**, Professor, Directeur GSMI, UM6P

**Daniel Nahon**, Emeritus Professor, Aix Marseille University, Institut Universitaire de France, Founder CEREGE

**Louise Fresco**, Scientist, member of the Royal Netherlands Academy of Arts and Sciences

17:15 — 18:00

### DIGITAL TRANSITIONS AND THE WWW.

**Olivier Servais**, Dean of the Faculty of Economic, Political and Social sciences and Communication (JC Louvain)

**Raphaël Liogier**, Professor, Scientific Director of the Institute for Advanced Studies, UM6P

19:00 — 20:30

### MUSIC AS THE ART OF TRANSITIONS

Exceptional recital by **Geoffroy Coutau**, one of the world's leading interpreters of Brahms, who has been awarded in 2005 the First Prize in the International Johannes Brahms Competition

## TRACK B

09:00 — 10:30

### SAP+D URBAN TRANSITIONS

**Hassan Radoine**, Professor and Director of the School of Architecture, Planning and Design (SAP+D), UM6P

**Fernando Moreira**, Honorary Researcher at SURFACE Research Center

**Remy Sietchiping**, Chief: Policy, Legislation and Governance Section at UN-Habitat (United Nations Human Settlements Program)

10:30 — 12:00

### ROUND TABLE

With SAP+D students

12:00 — 13:00

SAP+D Boot presentation with students' projects

## TRACK B

16:00 — 17:00

### TRANSITIONS IN BIOLOGY: THE IMPACT OF COMPUTATIONAL BIOLOGY ON TRANSFORMING BIOLOGICAL RESEARCH

**Achraf Allali**, Professor of Bioinformatics, UM6P

**Magdy Mahfouz**, Professor of Bioengineering, KAUST University

17:15 — 18:15

### INNOVATIVE TRANSFORMATIONS FOR VIABLE ENERGY TRANSITION

**Youssef Belmabkhout**, Professor/Director of the Applied Chemistry and Engineering Research Centre of Excellence (ACER CoE), UM6P

**Kyle Cordova**, Founder and CEO at AquaPoro Ventures, Ltd

**Andy Huang Kuo-Wei**, Professor of chemistry, KAUST University

**Jamal Chaouki**, **Abdelghafour Zaabou**, **Mohamed Louay**

Moderator: **Houssam Bouaboula**, PhD student

18:15 — 19:15

### COLLECTIVE INTELLIGENCE. MECHANISMS OF CULTURAL TRANSITIONS

**Monica Tamariz**, Professor Of Psychology at Heriot-Watt University

**Mathieu Charbonneau**, Professor, FGSES, UM6P

**Cathal Omadagain**, Director of Research and Academics, SCI, UM6P

Moderator: **Nouhayla Majdoubi**, PhD student

## MAIN TRACK

09:30 — 10:30

## IMAGINE TRANSITIONS

**Kuria Wangari**, Founder of Farmer on Fire, winner of the Global Citizen Prize 2023  
**Shima Beigi**, Research Scientist on Sustainable Urban Development

10:45 — 12:30

## PARADIGM SHIFTS IN SCIENCES

**Francis Heylighen**, Cyberneticist, Professor, Free University of Brussels  
**Gregory Chaitin**, Mathematician, Resident at the IAS-UM6P  
**Carlos Gershenson**, Professor at SUNY, Binghamton University  
**Daniel Dennett**, Philosopher, Austin B. Fletcher Professor at Tufts University, Massachusetts

## TRACK ABS

09:30 — 10:30

## WHICH SKILLS TO CULTIVATE IN A WORLD PERMEATED BY AI?

**Agnès Gorge**

10:45 — 11:45

## SYSTEMIC THINKING IN BUSINESS CONTEXT

**Leonardo Lieberman**

12:00 — 13:00

## TRANSITIONING TOWARD RESPONSIBLE BUSINESS MODELS

**Dirk Boehe**, Full Professor of Strategic Management

## SIDE EVENT FEYERABEND

09:00 — 09:15

## OPENING REMARKS

**Reda Benkirane**, Virginia Chaitin, Epistemologist, Resident at the IAS-UM6P

09:15 — 09:45

## SCIENCE AND REALITY IN PAUL K. FEYERABEND

**Emmanuel Malolo Dissak**, Philosopher

09:45 — 10:15

## THE DECOLONIZATION OF KNOWLEDGE

**Kenneth Uyi Abudu & P. Feyerabend**

10:15 — 10:45

## TECHNICAL ASPECTS OF P. FEYERABEND'S PHILOSOPHY

**Karim Bschr**, Philosopher of science

10:45 — 11:00: Coffee break

11:00 — 11:30

## FUNARCHISM: FEYERABEND'S CRITICAL HEDONISM

**Matteo Collodel**

11:30 — 12:30

## FEYERABEND AND THE FUTURE OF AFRICAN HUMANITIES

**Reda Benkirane**

13:00 — 14:00: Lunch

14:15 — 15h15

## VISIONS OF THE UNIVERSE IN TRANSITION

**Jean-Pierre Luminet**, French astrophysicist, emeritus research director at the CNRS

15:30 — 14:15

## HUMANITY IN TRANSITION

**Jean Staune**, Holder of the Chair Sciences et Quête de Sens, UM6P  
**Ali Benmakhlouf**, Director of the Center for African Studies, UM6P  
**Raphaël Liogier**, Philosopher, Scientific director of the IAS, UM6P

17:30 — 18:15

## ONCE UPON A TIME, MOROCCAN GASTRONOMY OF THE FUTURE

**Fatema Hal**, Anthropologist, Chef

16:00 — 16:45

## RETHINKING AFRICAN ORGANIZATIONS AND LEADERSHIP IN TIMES OF TRANSITION

**Amine Belemlih**, Professor ABS, UM6P  
**Marcio Amaral Baptista**, Professor ABS, UM6P

17:00 — 17:45

## COLLABORATIVE ECOSYSTEM DESIGN &amp; BUILDING: THE CASE OF MOROCCO'S NASCENT GREEN HYDROGEN ECOSYSTEM

**David Hayes**, Professor of Entrepreneurship

18:00 — 18:45

## SUPPORTING THE TRANSITION OF TERRITORIES AND ECOSYSTEMS USING THE REGENERATIVE AND SYMBIOTIC APPROACH

**Isabelle Delannoy**, Environmentalist

14:00 — 14:30

## PRESENTATION OF THE FEYERABEND FOUNDATION

**Grazia Borrini-Feyerabend**

14:30 — 15:00

## INDIGENOUS KNOWLEDGE AND TRANSITION IN THE HIGH ATLAS REGION

**Abderrahim Ouarghidi**

15:00 — 15:15

## WHAT IS HAPPENING IN THE HIGH ATLAS? WHAT HAS BEEN DONE SO FAR?

**Sarah Alami**, Professor, SCI, UM6P  
**Asmaa Maaroufi**, PhD student UM6P

15:15 — 15:30: Coffee break

15:30 — 16:15

## WHAT HAS BEEN THE ROLE OF UM6P REGARDING TAKING INTO ACCOUNT LOCAL KNOWLEDGE AND EXPERTISE AND EXPECTATIONS SO FAR?

Speakers: **Hassan Radoine**, Professor and Director of the School of Architecture, Planning and Design (SAP+D), UM6P  
**Selma Zerhouni**, **Abdallah Herzenni** + Representatives of associations from the High Atlas communities

09:30 — 10:45

### CLIMATE CHANGE: WHAT TRANSITION

**Ghani Chehbouni**, Professor, Director Partnerships IWRI

**Dara Entekhabi**, Science team leader for the NASA Soil Moisture Active/Passive (SMAP) satellite, MIT

**Jauad El Kharraz**, Executive Director at the Regional Center for Renewable Energy and Energy Efficiency

11:00 — 11:45

### THE REVOLUTION OF COLD FUSION

**Randell Mills**, Founder of Brilliant Light Power

**Gregory Chaitin**, Mathematician, Resident at the IAS-UM6P

12:00 — 13:00

### QUANTUM VIEWS ON TRANSITIONS

**Hervé Zwirn**, CEO Eurobios & Président du Collège de Physique et de Philosophie

**Matthew Leifer**, Program Director & Assistant Professor of Physics Member; Institute for Quantum Studies Chapman University

**Jeffrey Barrett**, Chancellor's Professor in Logic and Philosophy of Science at the University of California

13:00 — 13:15

### CLOSING SESSION: TOWARDS THE UM6P WHITE PAPER ON TRANSITIONS

13:00 — 14:00: Lunch

15:00 — 16:30

### ATELIER GAMING, A NEW WAY OF LIFE

**Olivier Servais**, Dean of the Faculty of Economic, Political and Social sciences and Communication (UC Louvain)

15:00 — 17:00

### WRAP-UP SESSION

19:00 — 20:30

### LE MALHOUN' SHOW, A POPULAR POETIC-MUSICAL ART REPRESENTED BY 60 ARTISTS



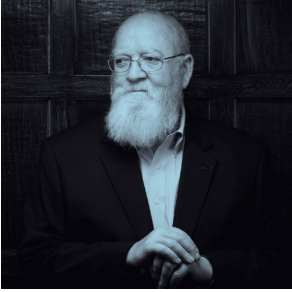
# **SPEAKERS**



## AVI LOEB

He holds the prestigious Frank B. Baird Chair at Harvard University, where for many years he was Director of the Institute for Theory and Computation at the Center for Astrophysics. He launched the Black Hole Initiative in 2016.

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## DANIEL DENNETT

The world's best-known philosopher of the mind, who also defends a positive but utilitarian view of religious phenomena. He is one of the leading contemporary figures in evolutionary biology and cognitive science.

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## DARA ENTEKHABI

Leader of NASA's SMAP (Soil Moisture Active/Passive) water research team. His research and discoveries range from hydrometeorology to hydroclimatology. He is Professor of Earth, Atmosphere and Planetary Sciences at the MIT.

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## GILLES SPENLEHAUSER

Both a leading scientist and a leading businessman, he has been scientific director at L'Oréal, scientific director at one of the world's largest pharmaceutical companies, Pfizer, and in heavy industry at Rhone-Poulenc.



## GUY BRASSEUR

One of the world's leading meteorologists and climate specialists. He has been Director of the Max Planck Institute for Meteorology, and Director of the German Climate Computing Centre.

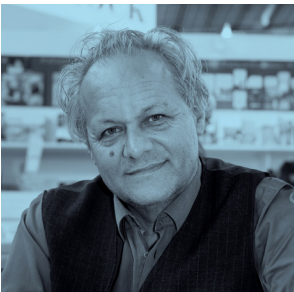
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## HUANG KUO-WEI

Internationally recognized specialist in renewable energies, carbon dioxide use and misuse, and decarbonization.

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## JEAN-PIERRE LUMINET

One of the greatest discoverers and theorists of black holes and a leading specialist of the evolution of the cosmos. An internationally acclaimed researcher, he has collected some of the most prestigious prizes in astrophysics, including the Georges Lemaître Prize. A celestial body even bears his name, Asteroid 5523 Luminet.

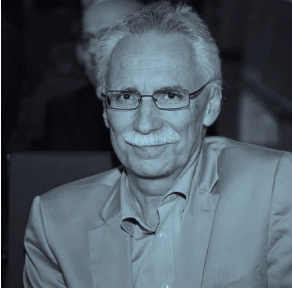
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## JEFFREY BARRETT

Philosopher of science, particularly physics, he has produced radically innovative interpretations of the problem of measurement in physics, especially in quantum physics.





## KARL SIGMUND

Mathematician and specialist in game theory, he was director of the Institute of Mathematics at the University of Vienna. He received the prestigious Isaacs Award for his lifetime achievement in science. He is a member of numerous prestigious national academies in mathematics and game theory.

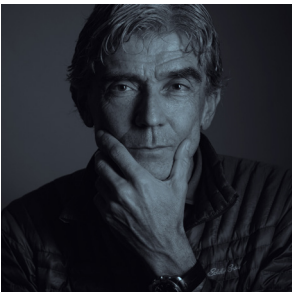
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## KYLE CORDOVA

Both a researcher and a businessman, he is one of the founders of the renowned University of California Global Science Institute.

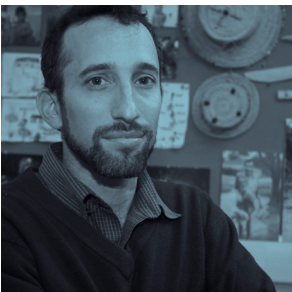
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## LUC HARDY

Luc is an entrepreneur, veteran adventurer, environmental advocate, author, member of the Explorers Club of New York. Luc is an engineer graduated from Ecole Centrale Paris. He is president of Sagax, a US-based investment and management advisory firm. His curiosity for the world and his love of adventure stem from his origins in Brittany. When he is not relaxing in his Connecticut tipi, he pursues a personal goal of traveling extensively across the globe, photographing and reporting from remote places in order to raise awareness for global causes.

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## MICHAEL GURVEN

Renowned professor of anthropology at the University of California at Santa Barbara, recognized worldwide for his work on alternatives to the evolutionary model of Western societies (specializing in Amerindian lifestyles in particular). He is an expert in demography, ecology and epidemiology. Since 2002, he has directed the Tsimane' Health and Life History Project. He has received numerous international awards for his work, and is regularly quoted in major media such as the New York Times, the BBC, NPR, Scientific American and the Wall Street Journal.



## MIKE ZAWORTKO

He has been ranked among the world's most cited researchers in the field of metal-organic matter (over 3,000 citations per year). Considered as one of today's leading chemists.

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## OLIVIER SERVAIS

Director of the Department of Economic, Social, Political and Communication Sciences at the University of Louvain La Neuve, he is one of the leading anthropologists specializing in online games, virtual worlds and digitized universes in which humans live their lives through avatars.

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## PAOLO LAJ

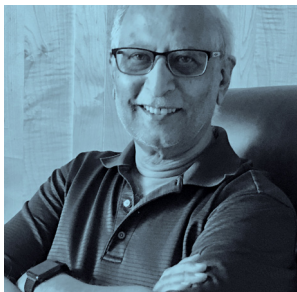
A specialist in meteorology, organic chemistry, ecology and pollution phenomena, he is a Director of Research at INAR (Institute for Atmospheric and Earth System Research).

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## PEYTON YOUNG

Professor Emeritus of Economics at Oxford University, Fellow of the British Academy and of the American Academy of Arts and Sciences. Leading researcher at the U.S. government's Office of Financial Research. His contributions to evolutionary game theory are recognized worldwide.



## RAVISHANKARA RAVI

One of the world's leading specialists in atmospheric chemical reactions. His work was used in the 1997 Kyoto Protocol on greenhouse gas reduction. He was one of the first scientists to alert the world about the higher-than-usual presence of nitrous oxide in the atmospheric ozone.

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## RANDELL MILLS

Founder and Chairman of Brilliant Light Power, a major player in the cold fusion revolution, which could produce clean energy in almost infinite quantities. He is a pioneer in the use of artificial intelligence to solve chemical problems, understand molecular structures or produce innovative therapies, for example against cancer.

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## SYLVAIN SORIN

One of the leading figures of the French game theory school, he was selected to give the prestigious Newmann Lecture at the World Game Theory Congress in 2016.

The logo consists of a 3x3 grid of squares. The top-left square is dark blue, the top-middle and top-right squares are white, the middle-left and middle-middle squares are white, the middle-right square is white, the bottom-left and bottom-middle squares are white, and the bottom-right square is dark blue.

**UM6P  
SCIENCE  
WEEK**