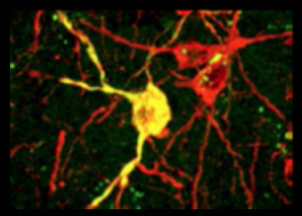
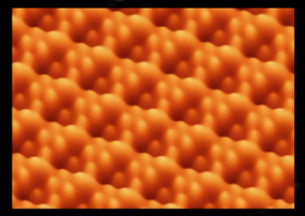
IMPORTANT DATES

Abstract deadline (oral or poster presentation): April 28, 2019

Author submission acceptance notification May 10, 2019

Early bird registration fee: May 31, 2019





CONFERENCE SITE

Campus du Pharo, Aix-Marseille Université,
Jardin du Pharo, 58 Bd Charles Livon, 13007 Marseille

SPECIAL EVENT

"Evolution: from *Sahelanthropus* to Starman"

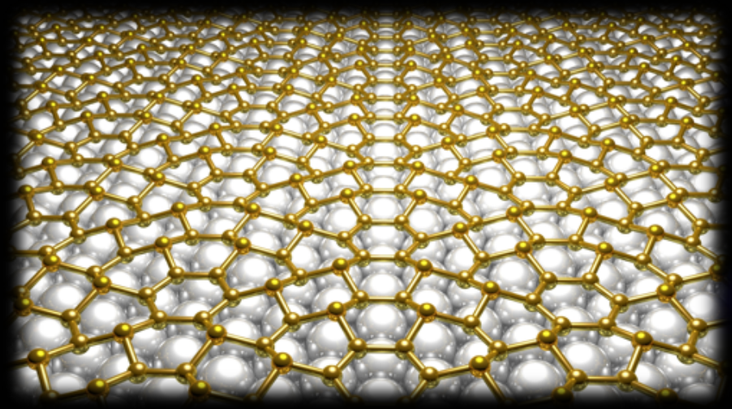
Public conference and debates commemorating the 50th anniversary of the first step of (a) Man on The Moon
Friday, July 19, 18H, at the Théâtre du Gymnase, Marseille

PLENARY SPEAKERS

Prof. Henry de Lumley, Président de l'Institut de Paléontologie Humaine, Fondation Scientifique Albert 1er Prince de Monaco, *Les grandes étapes de l'évolution morphologique et culturelle de l'Homme. Emergence de l'Être Humain*

Prof. Etienne Klein, CEA, Saclay and Ecole Centrale, Paris, France, *Peut-on penser "contre son cerveau"?*

Prof. Michel Mayor, Wolf Prize Laureate (2017), discoverer of the first exoplanet at the OHP in 1995, Univ. de Genève, Switzerland, *Autres Mondes dans le Cosmos : Rêve de l'Antiquité - Réalité de l'Astrophysique d'Aujourd'hui*



From the NanoWorld to StarDust

NW2SD
International conference

https://nw2sd.sciencesconf.org/

July 17-19 2019, Marseille, France

Palais du Pharo

SCOPE

The multi-disciplinary theme of the conference, commemorating the 50th anniversary of the first step of Neil Amstrong on The Moon, will cover space observations and spectroscopic signatures of molecules and nanostructures (in the environments of comets, exoplanets, cosmic dusts etc.) to experimental simulations of their formations in the laboratory. Typically, such studies associate in a synergetic way plasma and molecular physics, surface science, nanosciences, quantum chemistry, laboratory astrophysics and astronomy. Furthermore, sessions will be devoted to neurosciences and molecular biology, since nanosciences play a key role in the development of these disciplines.
The conference will be attended both by nanoscience experts and by astronomers.

PLENARY SPEAKERS

Prof. Bernard Bigot, Director-General, ITER Organization, Cadarache, France, *ITER Project: let the stars inspire us towards a sustainable world energy supply*

Prof. Ewine van Dishoek, Kavli price Laureate in Astrophysics (2018), Leiden Univ., The Netherlands, *Building stars, planets and the ingredients for life in space*

Prof. Christoph Gerber, Kavli Prize Laureate in Nanosciences (2016), Univ. of Basel, Switzerland, *From nanobio to precision medicine based on nanomechanics*

Prof. Charles Kane, Breakthrough Prize Laureate (2019) in Fundamental Physics, University of Pennsylvania, USA, *The emergence of topological quantum matter*

Prof. Francisco Mojica, Albany Medical Center Prize (2017), pioneer of CRISPR (molecular biology), Univ. of Alicante, Spain, *CRISPR systems: the advent of a new scenario in biological research*

Prof. Gérard Mourou, Nobel Laureate in Physics 2018, Ecole Polytechnique, Palaiseau, France, *Passion Extreme Light*

Dr Hubertus Thomas, Deutsches Zentrum für Luft- und Raumfahrt, Wessling, Germany *Complex/dusty Plasma Physics from Laboratory to Space*

Prof. Qi-Kun Xue, Future Science Prize-Laureate (2016), Tsinghua Univ., Beijing, China, *Atomic-Level Control of High Temperature Superconductivity*

Credit: Jianping Guo

CONTACT

nw2sd@sciencesconf.org
https://nw2sd.sciencesconf.org/

REGISTRATION FEES

See the web site, https://nw2sd.sciencesconf.org/

INVITED SPEAKERS

Prof. Masakazu Aono, MANA NIMS, Tsukuba, Japan
The Atomic Switch is Now Flying in Space
Dr Jean-Luc Beuzit, Laboratoire d'Astrophysique de Marseille, France
Direct imaging of extrasolar planets
Dr. Luc Blanchet, Institut d'Astrophysique de Paris, France
Gravitational waves: a new astronomy
Dr. Philippe Boduch, Univ. Caen, France
Swift heavy ions, ices and astrophysics
Dr. José Cernicaro, CSIC, Madrid, Spain
From molecules to dust in carbon rich astrophysical environments
Prof. James K. Gimzewski, CNSI and UCLA, Los Angeles, USA
The radical atom: mechanosynthetic 3D printing for atomically precise manufacture
Dr Yeukuang Hwu, Academia Sinica, Taipei, Taiwan,
Brain mapping with X-rays
Prof. Ying Jiang, Pekin Univ., Beijing, China
Peering into the nanostructured water/ice
Prof. Ingrid Mann, Artic Norway University, Tromso, Norway
Nanodust and nanoparticle interactions in ionospheric and solar wind plasma
Prof. Hidemi Shigekawa, University of Tsukuba, Japan, *Sub-cycle transient scanning tunneling spectroscopy and its applications*
Dr. Antonio Tejeda, CNRS Orsay, France
Graphene growth on different SiC crystallographic orientations
Dr Patrick Vogt, TU Chemnitz, Germany
Silicene and its siblings in the non-trivial nanoworld
Prof. Andew Wee, NUS, Singapore
The Molecule-2D Interface

CONFERENCE CHAIR

Prof. Guy Le Lay (Aix-Marseille Univ.)

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Prof. Paul Weiss, Univ. of Calif., Los Angeles, USA
Prof. Kehui Wu, Acad. Sciences, Beijing, China
Prof. Qi-Kun Xue, Tsinghua Univ., Beijing, China

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Dr Auguste Le Van Suu, OHP, Saint Michel l'Observatoire, France
Prof. Francois Roman, Aix-Marseille Univ., France
Dr Eric Salomon, Aix-Marseille Univ., France

ABOUT NW2SD

The incursion of science into the nano-world and into the world of low dimensionality for several decades has led to a new vision of the properties of matter with extraordinary repercussions in a large number of scientific fields. The multi and interdisciplinary themes to be presented in this conference will cover broad fields of current science ranging from observations of the spectroscopic signatures of molecules and nanostructures in space environments (stellar dusts, comets, exoplanets, ...) to the experimental simulations of their laboratory formation. This type of study is carried out in synergy with atomic, molecular and plasma physics, nanosciences, quantum physicochemistry and astrophysics, and laboratory astrochemistry. In addition, sessions will present recent results of the contribution of nanoscience in the development of neuroscience and biology.

TOPICS

- Artificial low-dimensional materials, 2D topological insulators and superconductors
- Nanostructures for spintronics, quantum computing and neuromorphic computation
- Ion-ice Interactions and carbon-based nanomaterials beyond Earth
- Nanobiology and Neurosciences
- Formation of cosmic dusts and related physico-chemical processes
- Spectroscopy and chemistry on (exo)planets, comets, and dust clouds
- Dusty plasmas in tokamaks

Credit: Jianping Guo