Big Data for Society workshop on Oct 9, 2014

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Challenges and perspectives on collaborations between the European Union and the United States in Big Data for Society.

- When: October 9, 2014, 8:30 AM - 2:00 PM
- Where: Embassy of France in the United States, 4101 Reservoir Road NW, Washington, DC (Map)
- #BigDataFrance

RSVP: For security reasons, all participants must be registered through this link before Wednesday October 8th at noon

On October 9, the Mission for Science and Technology of the Embassy of France in Washington, DC, the CNRS Office for North America, and the CNES delegation in the USA, welcome a half-day workshop on Big Data for Society. This workshop is organized with IRIT – a CNRS laboratory located in Toulouse, France, and LBNL – a DOE National Laboratory located in Berkeley.

Bilat-USA 2.0 and Euraxess Links North America are associated with this event.

Agenda at a glance

- 8:30-8:45 Registration and coffee
- 8:45-9:00 Opening remarks
- 9:00-10:00 Data Analysis in Astronomy
- 10:00-10:45 Round Table: US support for a US partner in a H2020 project of the EU
- 11:15-12:15 Perspectives on Big Data for Society
- 12:15-13:00 Round Table: Support of EU Member States to H2020 project with a US partner
- 13:00-14:00 Networking lunch

8:45–9:00 Opening remarks

- Frédéric Doré, Deputy Chief of Mission, Embassy of France
- Cyrus Wadia, OSTP (Office of Science and Technology Policy), White House
- Marc Daumas, Mission for Science and Technology, Embassy of France
Astronomy is transforming from a data-starved to a data-swamped discipline, fundamentally changing the nature of scientific inquiry and discovery. New technologies are enabling the detection, transmission, and storage of data of hitherto unimaginable quantity and quality across the electromagnetic, gravity and particle spectra. The observational data obtained during this decade alone will supersede everything accumulated over the preceding four thousand years of astronomy. Currently there are 4 large-scale photometric and spectroscopic surveys underway, each generating and/or utilizing hundreds of terabytes of data per year. Some will focus on the static universe while others will greatly expand our knowledge of transient phenomena.

Maximizing the science from these programs requires integrating the processing pipeline with high-performance computing resources. These are coupled to large astrophysics databases while making use of machine learning algorithms with near real-time turnaround. Here I will present an overview of one of these programs, the Palomar Transient Factory (PTF). I will cover the processing and discovery pipeline we developed at LBNL and NERSC for it and several of the great discoveries PTF has made - including the brightest supernova in a generation. As the methods and tools developed under this program are applicable to many other areas, I will also highlight the knowledge-transfer into other scientific domains and industry this program has begot.

10:00-10:45 Round table: US support for a US partner in a H2020 project of the EU

- Moderator: Pierre Henri Cros (IRIT)
- Moderator: Osni Marques (LBL, Computational Research Division)
- Errol G. Levy (Delegation of the European Union) - slides
- Wo L Chang (NIST)
- Chaitanya Baru (NSF)
- Wendy Wigen (NITRD)
- Lucy Nowell (DoE office of science, excused)

This round-table will explore the point of view of federal agencies and departments on the participation of their research teams in Horizon 2020 (H2020) projects. What kind of support or commitment may or may not be expected.

H2020 is the biggest European Union Research and Innovation program ever with nearly €80 billion of funding available over 7 years (2014 to 2020) – in addition to the private investment that this money will attract. It promises more breakthroughs, discoveries and world-firsts by taking great ideas from the lab to the market. Participation of US partners is welcome to tackle the most interesting questions with the best teams on a global scale. Yet for most H2020 actions, the US need to support any US partners of an H2020 project.

11:15-12:15 Perspectives on Big Data for Society

- David L. Brown (LBNL, Director, Computational Research Division) - slides
- Michel Daydé (CNRS, Délégué scientifique, INS2I) - slides

What future contributions to expect from Big Data for Society in the US and in France
This round-table will start with an overview of the tools available to all H2020 potential applicants in EU Member States. We will use France and the Nederlands as examples. How does this support change from field to field, from one research institution to another?

We will then discuss specific actions dedicated to the participation of US partners in H2020 consortia. These actions range from events organized in the US to raise awareness on top consortia to reaching out to some specific communities such as scientists in the US that have been educated in the EU. We may take as an example a Big Data project to prevent malnutrition for the elderly.

Parking

Meter parking is available (4Hr time limit from 7:00AM to 6:30PM on Reservoir Road and 39th Street NW). Georgetown Hospital Parking Garage on Reservoir Road across the street (3800 Reservoir Road NW).