



## A look back on the fourth edition of the French-American Doctoral Exchange (FADEx) Program

Published on Thursday January 19, 2017

View online : <https://www.france-science.org/A-look-back-on-the-fourth-edition.html>

The fourth edition of the FADEx program was held in France from July 4 to July 8, 2016, with the support of Inria, CNRS, Société Informatique de France (SIF) and three “laboratoires d’excellence” (LabEx) established from the “Programme Investissements d’Avenir” (PIA). The FADEx program was created in 2014 by the Office for Science and Technology of the Embassy of France in the United States. It aims to enhance scientific exchanges between American and French PhD students working in the same field of research in order to encourage the development of French-American collaborations. This program also serves as an opportunity for American students to better understand the French research system. This edition focused on cyber-physical systems.

### The FADEx Program

The FADEx program encourages scientific exchanges between American and French PhD students working in the same scientific field, and, by doing so, supports the creation of future French-American scientific collaborations.

The FADEx program is an effective tool to promote the excellence of French universities, laboratories and research infrastructures. The circulation of the call for applications through American universities and research centers is a great way to illustrate the dynamics of French research in a specific field. The publication of the call in France is also an excellent way to highlight the international actions of the French Embassy.

From the applications received, a group of twenty American and French PhD students is chosen and invited to France for a week to participate in a thematic seminar. This week is also an opportunity for the students to present their work to their peers in an international conference setting and to attend to conferences given by renowned scientists. The program also features workshops in order to enhance scientific collaborations between students.

### FADEx 2016 - Edition on Cyber-Physical Systems

For the first edition of the FADEx program in the field of Information and Communications Technologies the program focused on cyber-physical systems, which are made of co-engineered interacting physical and computational hardware and software components. A broad spectrum of applications are covered, such as transportation, manufacturing, smart grids, buildings and cities, and healthcare.

10 American PhD students and 10 French PhD students were selected from a pool of 120 applications. This selection was made based on criteria of scientific excellence and relevance to the topic. Among the 10 American PhD selected students, several of them study in leading research universities such as the University of Illinois at Urbana-Champaign, the University of Pennsylvania, Princeton University, Columbia University, the University of Texas at Austin and New York University.

The first part of the program was co-organized by University Grenoble Alpes, LabEx Persyval-Lab and Inria. Joseph Sifakis (Turing Award, 2007) opened the seminar with a presentation of the main scientific challenges emerging from cyber-physical systems. This presentation was followed by two days of scientific presentations from PhD students, visits of Inria platforms and workshops.

The program was followed by a day organized by the LIP6 lab and the LabEx Smart at the University of Pierre and Marie Curie in Paris, during which the students had the opportunity to visit the robotic platform of the Institute for Intelligent Systems and Robotics (ISIR), and to participate in a round table with representatives of different research organisms (CNRS, Inria, ANR) on collaborative tools for international mobility.

The last part of the program was organized by IRISA and the LabEx CominLabs in Rennes, where the students attended scientific presentations and visited the virtual reality research platform called Immersia. A social event was also organized at the French-American Institute in Rennes.

For this first edition in the field of Information and Communication Technologies, the FADEX program showed its attractiveness to scientific students from both sides of the Atlantic. The financial support of Inria, SIF and the three LabEx was crucial for the project's implementation.

The 2016 FADEX program organized during a full week combined significant moment around scientific topics as well as convivial times, which made this edition a success. Several PhD students already have thought of conducting postdoctoral research in France, or co-writing a research article.

FADEX is a mobility program, part of the "**Transatlantic Friendship et Mobility Initiative**" supported by the Cultural Services and the Office for Science and Technology of the Embassy of France in the United States, which aims to increase student mobility between France and the United States.

**Video :**