



Press release

Date 1.9.2011

EMBARGO 1.9.2011 – 17.30

Marcel Benoist Prize 2011 awarded to Michele Parrinello

The Board of Trustees of the Marcel Benoist Foundation under the chairmanship of Federal Councillor Didier Burkhalter has awarded the 2011 Marcel Benoist Prize, Switzerland's most prestigious science prize, to Michele Parrinello from the Università della Svizzera italiana and the ETH Zurich. The award is made in recognition of Professor Parrinello's computer modelling in the field of molecular dynamics. He will be presented with the award on 28 November 2011 at an official ceremony at the Università della Svizzera Italiana (USI), his main place of work.

Federal Councillor Burkhalter announced the name of this year's laureate in a speech given to mark the inauguration of the building housing the University of Teacher Training of Central Switzerland-Lucerne and the University of Lucerne. The Board of Trustees of the Marcel Benoist Foundation held a meeting in the new building on Monday, 22 August to select the 2011 laureate.

Michele Parrinello, who was born in Messina, Italy in 1945, began his scientific career as a physicist in Trieste. He continued this career at the IBM Research Laboratories in Rüschlikon and at the Max Planck Institute, of which he is still a member today. He has been Professor of Computational Science at the ETH Zurich since 2001 and was Director of the des Swiss Centre for Scientific Computing in Manno until 2003. He currently holds chairs at the USI and the ETH Zurich, his principal place of work is Lugano.

In 1985, together with Roberto Car, he developed the first dynamic behavioural simulation of a silicon crystal, enabling for the first time an insight into the evolution of the material over time based on a realistic model. In the field of molecular dynamics, Parrinello also worked with Aneesur Rahman. The two scientists developed a molecular dynamic simulation method in which the phase transitions in solids under pressure could be studied in order to understand the phenomena of crystal transformation.

Since then, the work of his team in Lugano has led to the development of metadynamics, which enables the molecular structure and properties of highly complex systems, such as proteins, to be calculated and predicted more easily. This work represents a highly fruitful continuation of that conducted in the past, as it offers an opportunity to study the results achieved with Aneesur Rahman and Roberto Car and significantly improves on them.

Michele Parrinello has received numerous awards for his work, including the Dirac medal in 2009 with Roberto Car. His scientific work in the field of molecular sciences is outstanding and has countless applications, particularly in the study of processes and properties of solids, liquids, chemical reactions and in biochemistry.

The Marcel Benoist Prize, considered to be Switzerland's 'Nobel Prize', has been awarded to Swiss-based scientists every year since 1920 for their outstanding work and their impact on human life (further information at www.marcel-benoist.ch).

FED. DEPARTMENT OF HOME AFFAIRS

Press and Information Service

Further details:

François Baumgartner, Secretary of the Marcel Benoist Foundation,
General Secretariat of the FDHA, Tel. 031 322 80 31, <http://www.marcel-benoist.ch>.
Katja Zürcher-Mäder, Federal Department of Home Affairs, Tel. 031 322 81 00