

Award of the Incentive Prize for Young Scientists 2010 – Physics
to
Dr. Tomás Grigera

Tomás Grigera was born in the city of La Plata in the Province of Buenos Aires in 1969. He took his physics degree followed by a doctorate at the National University of La Plata which he was awarded in 1998 under the tutorship of Dr. Rubén Figini. His experimental work has focused on the relationship between chemical structures and the static and dynamic properties of polymers in solution. From 1998 to 2000 he carried out post-doctoral studies at Northeastern University, Boston, USA, as a member of the group led by Prof. N. Israeloff. He performed experiments on structural glass, measuring simultaneously susceptibilities and fluctuations which allowed him to observe a violation of the theorem of dissipation fluctuation. This work has become a classic of its kind and has been widely quoted. In a second post-doctoral stage, from 2000 to 2002, his work covered theoretical physics in the group led by Prof. Giorgio Parisi in Rome. Here he dedicated his studies to the theory of liquids, glass and other disordered systems. He researched the different instant configurations which appear in super-chilled liquids, their spectrum of vibrations and developed algorithms for Monte Carlo simulations of these systems. The results of these studies led to a number of publications which had a significant impact.

Dr Grigera's unusual versatility is worthy of note, shown in his ability to develop highly acknowledged work both in the area of theoretical and experimental physics. Among his many successful interests, in addition to his earlier achievements, he has made technical and technological contributions to computational aspects and applications for technology companies in Argentina.

He has been working at the Institute of Physico-chemical Theoretical and Applied Research (*Instituto de Investigaciones Fisicoquímicas Teóricas y Aplicadas – INIFTA*) in La Plata since 2003 where he is a tenured professor at the Physics Department at the Faculty of Exact Sciences of the University of La Plata and a member of the Scientific Researcher Course of the CONICET (assistant researcher).

Dr Grigera has published over 25 works in prestigious scientific journals, a testament to the broad-based international renown his work enjoys. He has given courses at international schools in Bariloche, Argentina, La Havana in Cuba and Trieste in Italy. He has also lectured as a guest speaker at nine international conferences. He works closely with researchers in Argentina (Dr. Albano in La Plata, Dr. Domínguez in Bariloche and Dr. Cannas in Córdoba) and in Italy. Two Italian students have also completed internships at the INIFTA as part of the collaboration between the Universities of La Plata and Rome. They undertook a numerical study of glass transition subsequently published in *Nature Physics*, one of the most highly-regarded periodicals in scientific circles.

Given this background and bearing in mind;

- His contributions to the theories of glass, polymers and other disordered systems and the international recognition he has garnered for his work;
- His versatility at professional level, which allows him to tackle experimental, theoretical, technical and computational works with equal success;
- His outstanding academic training and significant teaching experience.

The jury is pleased to select Dr. Tomás Grigera for the 2010 Incentive Prize for Young Scientists in the area of Physics.