

ITALY
ReaSON
Researchers are Stars for One Night
Torino, Vercelli, Alessandria, Biella

Organised by

Università degli Studi di Torino, Divisione Ricerca e Relazioni Internazionali (contact: **Claudio Borio**, arearicerca-rapportinternazionali@unito.it) with Unioncamere Piemonte Politecnico di Torino, Università degli Studi del Piemonte Orientale, Istituto Superiore Mario Boella, Centrocienza Onlus



(Robot with anthropomorphic arm, Sudoku, Torino surrounded by mountains)

Rural demonstration activities: sustainable agro-food systems, a bridge between Asia and Europe(plan diseases, demos about food safety and crop protection in India and china, social-economic impact of diseases, experiments and observations with stereomicroscope and optical microscope), soli water and the climate, an underground adventure (soil as a resource, short interactive experiments, some activities being specifically addressed to children)

Playing with sciences: *magical chemistry* (amazing chemical reactions, selected for their visual impact), *wonderful world of chemistry* (interactive lab) the *magic of physics* (physics of toys, chemistry at home, magic objects...) *playing with complex fluids*, *playing with maths* (interactive games, such as John Conway's game), *hunt of God particle* (the particle bale to generate the mass of the universes...)...

Live experiments: *energy* (alternative energy, ITER working), *lab inside the earth* (sensational geological phenomena), *sudoku*, *futoshiki*, *round robin* (how to generate logic-based number placement), *mechanics and materials for everyday life* (new materials replacing traditional ones, bones, glues, tiles, concretes, asphalts, resulting from waste recycling), *worlds under a microscope* (world in a water drop, with assistance of the Teatro delle scienze in Alessandria), *what researchers do for your safety, knowing the environment* (labs visits, short related debates with researchers)...

Simulations!: *study of complex systems* (analysis of incentives within working groups and dynamics of industrial districts) *real-life events through mathematical models* (what and why

is going on explained and shown on a computer screen) stereo image viewer, **full scale test on rock fall protection net fences** (test carried in very few labs in the world) studying **the dynamic of the cities** (evolving and complex structures) benefits of **satellite navigation** (emergency applications, info mobility) city navigation (three dimensional images for 3D navigation...)...

Prototypes: innovative aircraft design and development (high altitude very long endurance and unmanned vehicle), **mobile robot arm and wireless teleoperation** (small mobile robot, with freedom anthropomorphic arm developed by Politecnico di Torino), intelligent stick (for blind people, able to "read on the pavement), **railway vehicle dynamics** (scaled prototypes on roller rig..)...

Researchers on open air: night sky observations (binoculars and telescopes to observe double stars, globular clusters, deep sky objects..) **open air concert** (chorus and orchestra by professors and students from university of Eastern Piedmont), **treasure hunt** (familiarisation with history of the towns Torino and Biella), **cooking with the nitrogen** (ice cream and frozen chocolate, to link the Researchers 'night with Experimenta 2008, thematic exhibition on science)

Further information? <http://www.nottedellaricerca.eu/>