



*The Abdus Salam
International Centre for Theoretical Physics*



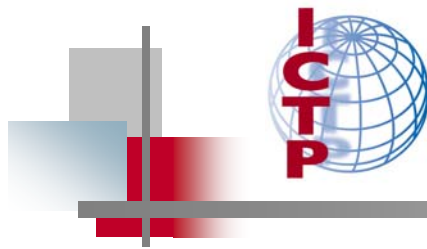
2137-8

**Joint ICTP-IAEA Advanced Workshop on Multi-Scale Modelling for
Characterization and Basic Understanding of Radiation Damage
Mechanisms in Materials**

12 - 23 April 2010

Computational material science

S. Scandolo
*ICTP
Trieste
Italy*

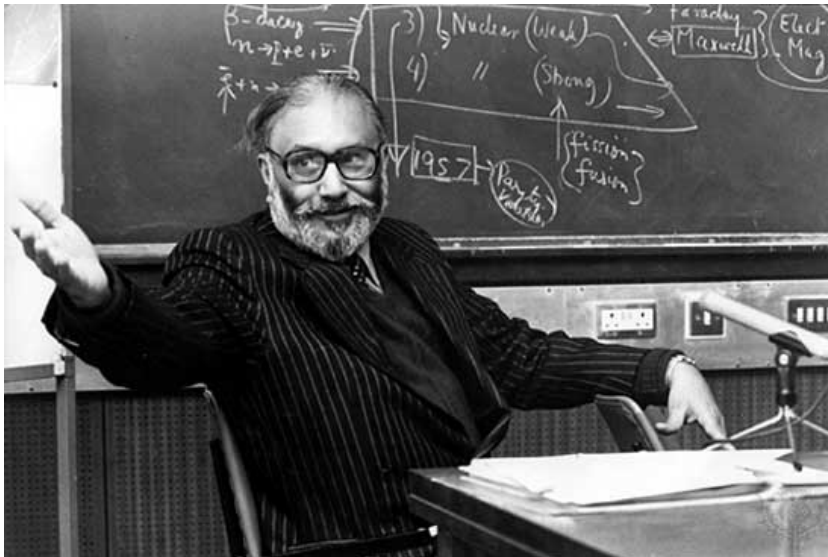


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ICTP Overview

Abdus Salam



“Scientific thought
is the common
heritage of mankind”

Abdus Salam 1926–1996



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10 December 1979. Salam receives the Nobel Prize from King Carl XVI Gustav of Sweden.



www.ictp.it



What we do



- Provide world-class research facilities for scientists from developing world
- Foster advanced scientific research, especially in theoretical physics and mathematics
- Create international forum for exchange of scientific information through comprehensive courses, workshops and seminars

Who benefits

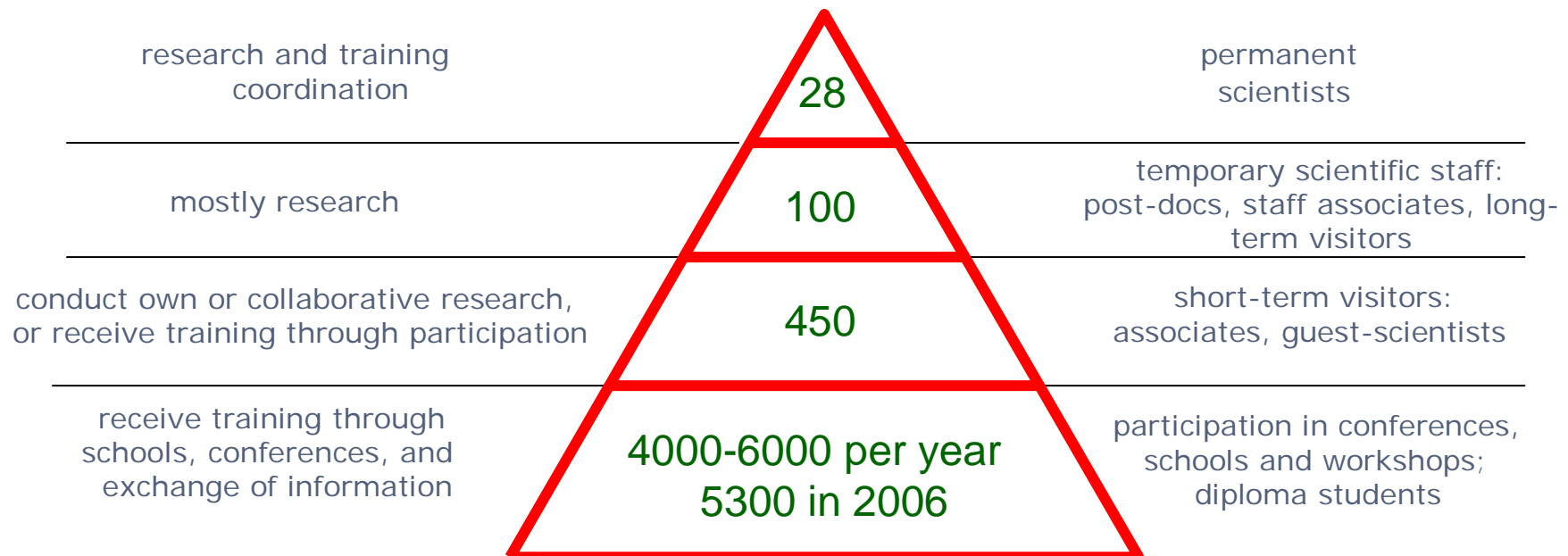
- 4,000 scientists/year
- 1,500 to 2,000 visitors attending hosted activities
 - 5 research groups
 - 50 scientific activities/year
 - Conferences
 - Workshops
 - Schools
- 100,000 visits since 1964
 - 60% from developing countries
 - 40% from developed countries
 - 170 nations represented



ICTP Scientists, Visitors and their Functions

ICTP Scientists, Visitors and their Functions

ICTP is an institution run by a few scientists for the benefit of many



Administrative framework

- Tripartite agreement
 - Italian government
 - UNESCO
 - IAEA



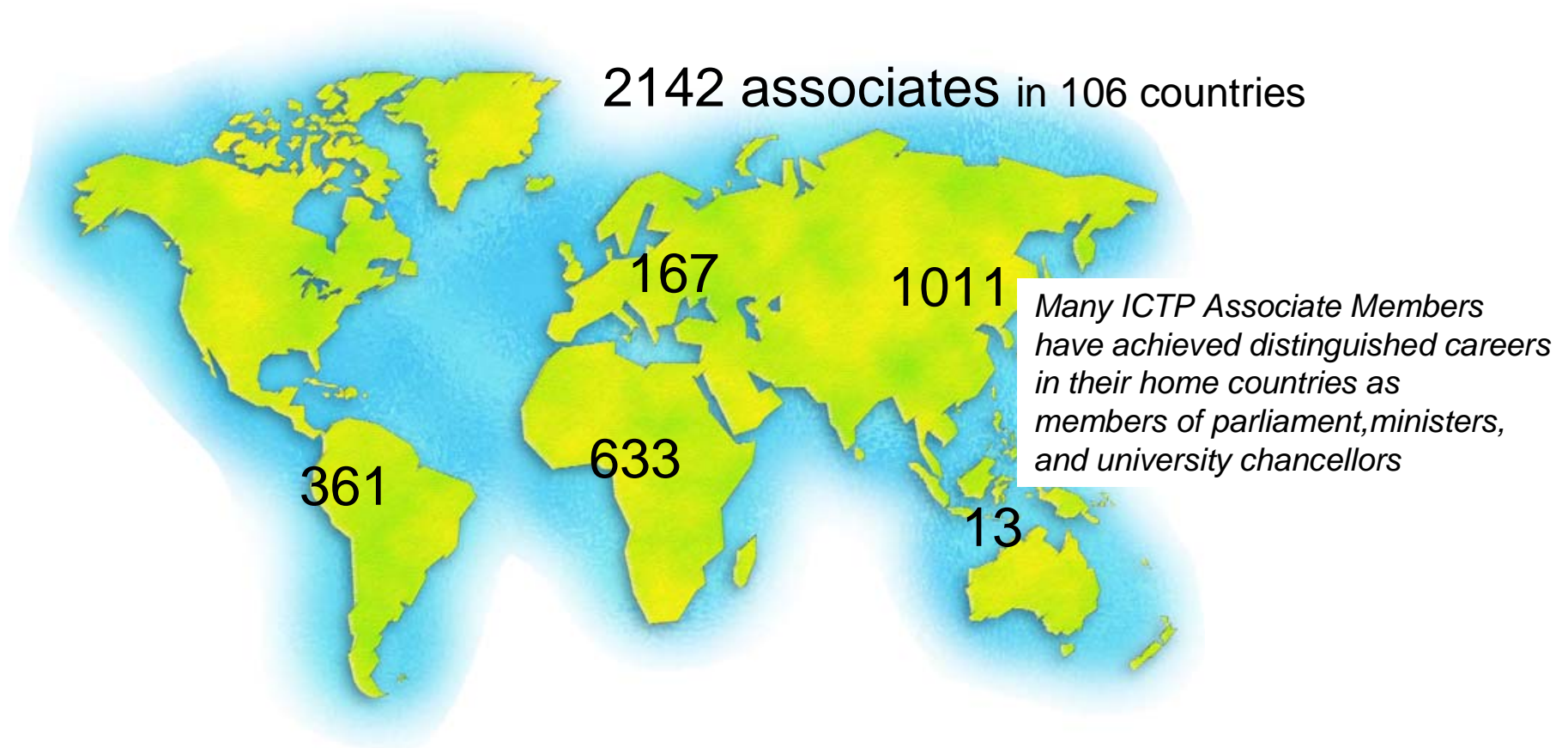
Annual contributions

- Italian government
 - €18.5 million a year
 - 85% of total budget
- UNESCO
- IAEA
- Other national and international organizations
 - ESA, ESF, ANPA, CNR, ENEA, INFN, Sida-SAREC, Sincrotrone Trieste



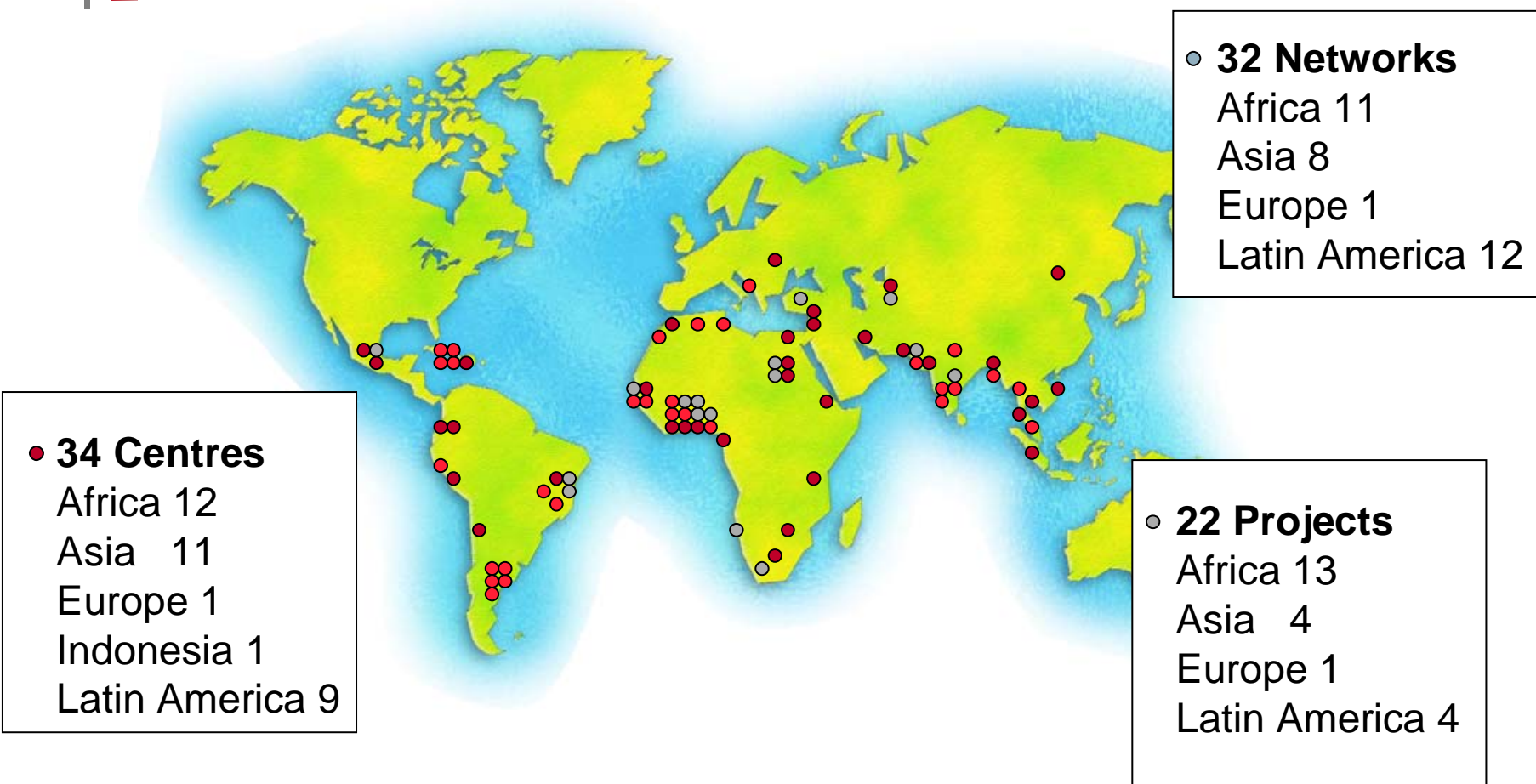
Beyond Trieste

Associates Programme since 1964



Beyond Trieste

OEA Centres and Networks since 1990



On-campus facilities

- Services for study

- Library
- Computers

- Services for living

- Guesthouses and housing
- Banking and travel
- Medical
- Cafeteria



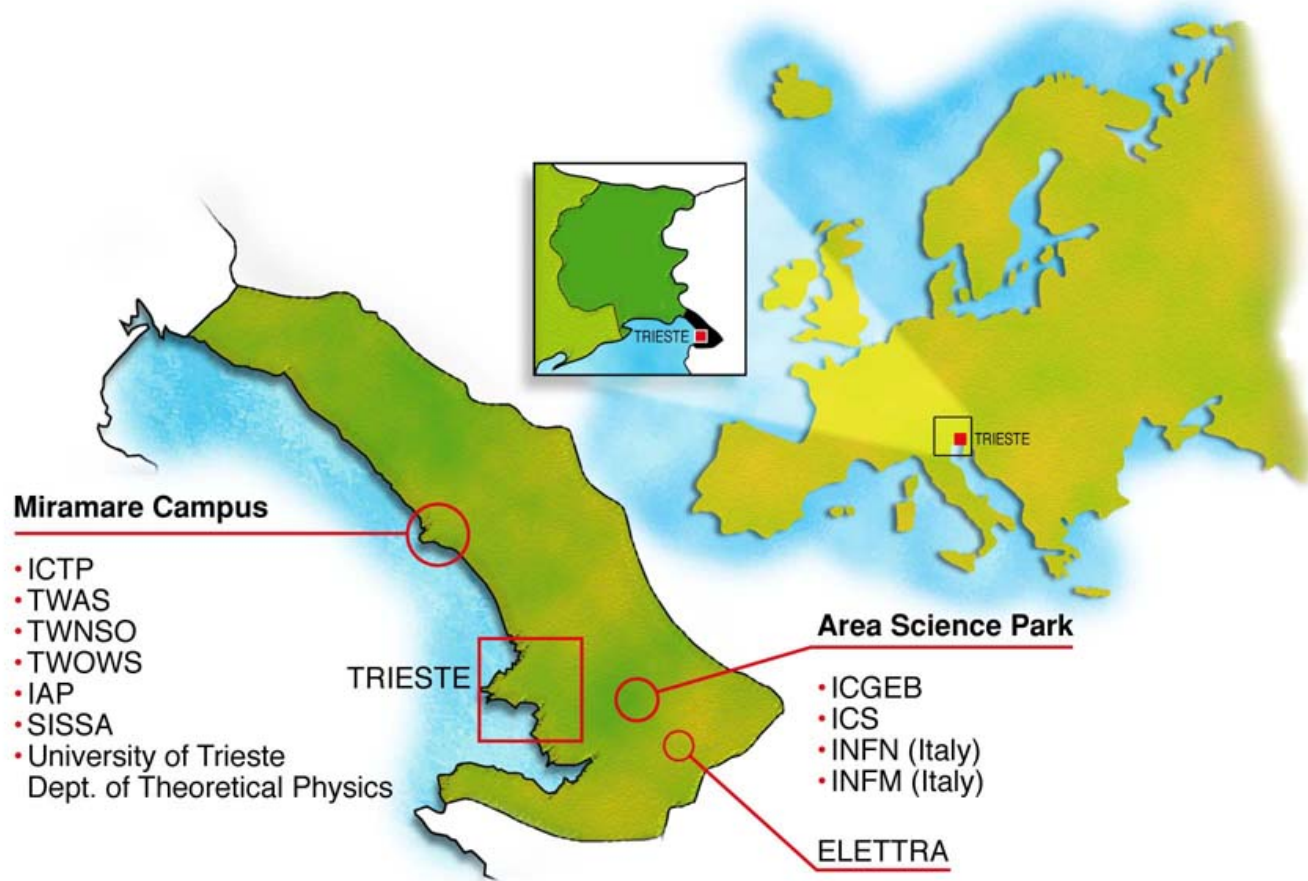


Library



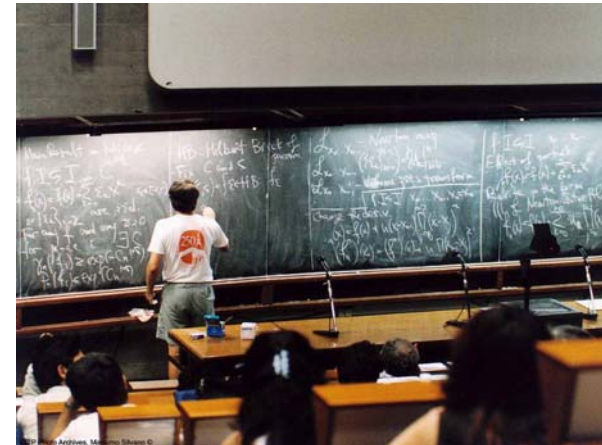
■ Books-print	64,000
■ Books-electronic	833
■ Journal subscriptions-print	466
■ Journal subscriptions-electronic	3,300
■ Periodical bound volumes	48,565
■ Access to repository archives	
■ On-line databases	10
■ Theses	1,500

Trieste system

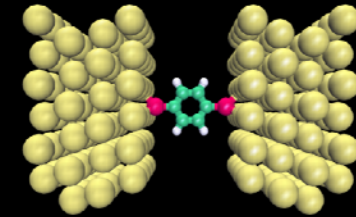


Fields of study

- Applied physics (AP)
- Condensed matter and statistical physics (CMSP)
- Earth system physics (ESP)
- High energy, cosmology and astroparticle physics (HECAP)
- Mathematics (Math)
- ICTP-INFN Laboratory (Mlab)



Condensed Matter Physics at ICTP



Sandro Scandolo



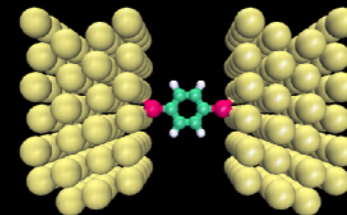
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**The Condensed Matter and
Statistical Physics Group**

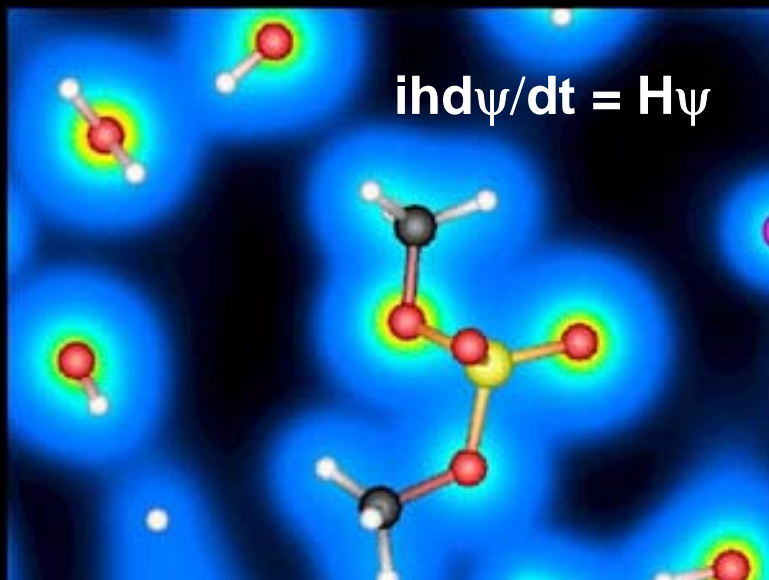


**(left to right)
M. Kiselev
R. Gebauer
N. Binggeli
S. Scandolo
M. Poropat
E. Tosatti
V. Kravtsov
M. Marsili
R. Zecchina
S. Franz**

The Condensed Matter and Statistical Physics Group



**Quantum simulations of materials:
Energy applications and Extreme
conditions**



**Complex systems and networks:
Internet, financial markets, social
networks**

