

**Workshop in honor of Antoine Salin:  
Recent advances on the dynamics of atomic and molecular particles  
interacting with gas and solid targets**

24 - 26 October 2005

Donostia International Physics Center (DIPC), Donostia-San Sebastian (Spain)

## **SCIENTIFIC PROGRAM**

(as of 19<sup>th</sup> October 2005)

### **Monday 24th October**

8.30am

Registration at the DIPC building

9.30am

Welcome by Pedro M. Echenique

#### Ion-solid interactions

10.00am-11.00am

- Peter Bauer: *Electronic stopping of slow hydrogen ions in metals and insulators*
- Jorge E. Miraglia: *Plasmon decay mechanisms in proton metal collisions*

11.00am-11.30am

Coffee break

11.30am-1.00pm

- Victor Hugo Ponce: *Convoy electrons: from ion-atom to ion-surface collisions*
- Gregor Schiwietz: *Auger spectroscopy for short-time ion-solid interactions*
- F. Javier García de Abajo: *Electron energy loss as a probe of photonic structures*

1.00pm-3.30pm

Lunch

#### Atomic and molecular physics

3.30pm-4.30pm

- Paula N. Abufager: *Single electron capture involving multielectron atomic targets*
- Manuel Yáñez: *On the existence and lifetimes of complexes between neutral systems and dications*

4.30pm-5.00pm

Coffee break

5.00pm-6.00pm

- Roberto D. Rivarola: *Coherent electron emission from molecular targets*
- Pablo D. Fainstein: *Photoionization of the hydrogen molecular ion: angular distributions and interference effects*

## Tuesday 25th October

### Gas – surface dynamics

9.00am-10.30am

- Roar Olsen: *Why rough surfaces make good catalysts – reaction mechanisms of hydrogen on the Pt(211) stepped surface*
- Ramón Sayós: *DFT and classical dynamics study of atomic oxygen interaction on  $\beta$ -cristobalite (100)*
- Geert-Jan Kroes: *The electronically adiabatic approach to diffractive and reactive scattering of  $H_2$  from metal surfaces*

10.30am-11.00am

Coffee break

11.00am-12.30pm

- Axel Gross: *Adsorption dynamics at surfaces including energy transfer to the substrate*
- Cristina Díaz: *Dissociative chemisorption of  $N_2$  on Ru(0001)*
- Antoine Salin: *Structure – reactivity relation in  $N_2$  dissociation on W surfaces*

12.30pm-3.00pm

Lunch

### Gas – surface dynamics

3.00pm-4.00pm

- Paula Rivière: *Interaction of  $H_2$  and  $D_2$  with NiAl(110)*
- Wei Dong: *Solute transfer from micelles to a bilayer adsorbed on a hydrophilic solid surface*

4.00pm-4.30pm

Coffee break

### Electron dynamics

4.30pm-6.00pm

- Dominique Vernhet: *Dynamics of laser-cluster interaction probed by X-ray spectroscopy*
- Jean-Pierre Gauyacq: *Core-excited  $Ar^*(2p^{-1}_{3/2} nl)$  atoms in various environments: surfaces and bulk*
- Daniel Sánchez-Portal: *Charge transfer at surfaces: the case of Ar and S on Ru(0001)*

## Wednesday 26th October

### Chemical reactivity

9.00am-10.30am

- Jean Claude Rayez: *The statistico-dynamical approach: a transition state theory revisited*
- Pascal Larrégaray: *Validity of phase space theory for atom-diatom insertion reactions*
- Laurent Bonnet: *Gaussian weighting in the quasiclassical trajectory method*

10.30am-11.00am

Coffee break

### Gas – surface dynamics

11.00pm-12.30pm

- Victor Sidis: *The interaction and recombination of H atoms at a graphite surface*
- Mario Rocca: *Role of rotational alignment in gas-surface interactions and simple chemical reactions*
- Fernando Martín: *Diffraction and reactivity of H<sub>2</sub> molecules on Pd surfaces*

12.30pm-1.00pm

- Victor Hugo Ponce: *Concluding remarks*

2.00pm

**Conference banquet**