

### Electron Dynamics in the Life Sciences

Friday 11 June 2010 --- IRCEP Seminar Room

08:50 - 09:00 -- Jorge Kohanoff (ASC-QUB): Opening

09:00 - 09:30 -- Eric Suraud (Toulouse):  
Towards the microscopic description of the irradiation of biomolecules

09:30 - 10:00 -- Tom Field (CPP-QUB):  
Electron attachment and molecular dynamics

10:00 - 10:30 -- Fred Currell (CPP-QUB):  
Gold nanoparticle enhanced radiotherapy development: attempts to  
connecting radiation transport calculations and observed biological effects

10:30 - 11:00 -- Coffee Break

11:00 - 11:30 -- Rodolphe Vuilleumier (ENS Paris):  
Fragmentation of small biomolecules in high LET ion tracks from first-  
principles

11:30 - 12:00 -- Giuseppe Schettino (CCRCB-QUB):  
Spatio-temporal investigations of DNA repair using microbeam irradiation

12:00 - 12:20 -- Deborah O'Connell (CPP-QUB):  
When plasma meets plasmid DNA

12:20 - 13:30 -- Lunch Break

13:30 - 14:00 -- Emilio Artacho (Cambridge):  
Effect of excited electrons on interatomic forces

14:00 - 14:30 -- Hugo van der Hart (CTAMOP-QUB):  
Atomic structure and ultrafast electron dynamics

14:30 - 14:50 -- Maeve Smyth (ASC-QUB):  
Electron localization in DNA: from the gas to the  
condensed phase

14:50 - 15:10 -- Coffee Break

15:10 - 15:40 -- Jason Greenwood (CPP-QUB):  
The Response of Gas Phase Biomolecules to Intense,  
Ultrashort Laser Pulses

15:40 - 16:10 -- Daniel Dundas (ASC-QUB):  
Correlated electron-ion dynamics in atomic wires

16:10 - 16:45 : Concluding Remarks and Discussion

