

# SFSB Conference



August 30-31

Tyndall National Institute, Cork, Ireland

Celebrating Prof. Stephen Fahy's 60<sup>th</sup> Birthday

# Thursday August 30<sup>th</sup>

## Session 1 - 09:00-12:00 - Chair: Éamonn Murray

- 09:00 Conference welcome. Opening by UCC President [Prof. Pat O'Shea](#), and VP for Research and Innovation [Prof. Anita Maguire](#)
- 09:30 [Steven Louie](#), University of California, Berkeley: *Topological and interaction effects in atomically thin 1D & 2D materials*
- 10:00 *Coffee Break*
- 10:30 [Don Hamann](#), Mat-Sim Research & Rutgers University: *Pseudopotentials: reintroducing simplicity and adding capabilities*
- 11:00 [Matthew Foulkes](#), Imperial College London: *Electronic properties of the warm dense electron gas*
- 11:30 [George Ford](#), University of Michigan: *Radiation reaction and the quantum Langevin equation*
- 12:00 *Lunch*
- 13:30 Walking Tour of University College Cork
- 15:00 *Coffee Break*

## Session 2 - 15:30-17:30 - Chair: David Reis

- 15:30 [Roberto Merlin](#) (Remote), University of Michigan: *Stephen's path from pseudopotentials and quantum Monte Carlo to ultrafast phonon dynamics*
- 16:00 [Margaret Murnane](#), University of Colorado, Boulder: *Capturing the fastest spin dynamics in materials using tabletop coherent high harmonic sources*
- 16:30 [Martin Vaughan](#), University of Bristol: *Spin dynamics in low dimensional semiconductors*
- 17:00 [Philip Murphy](#), Tyndall National Institute: *Inter-valley electron-hole recombination in Bi from first principles*
- 19:00 *Dinner at [The Cornstore Restaurant](#), 41/43 Cornmarket St, Cork*

# Friday August 31st

## Session 3 - 09:00-12:00 - Chair: Philip Murphy

- 09:30 [Ivana Savić](#), Tyndall National Institute: *Thermoelectric properties of materials near ferroelectric phase transitions*
- 10:00 [Tchavdar Todorov](#), Queen's University, Belfast: *Current-induced interatomic forces*
- 10:30 *Coffee Break*
- 11:00 [Paul Tangney](#), Imperial College London: *Reconciling the macroscopic and microscopic theories of classical electromagnetism - towards a postmodern theory of polarization*
- 11:30 [Myrta Grüning](#), Queen's University, Belfast: *Real-time first-principles approaches to theoretical spectroscopy*
- 12:00 *Lunch*
- 13:30 Tyndall Tour

## Session 4 - 14:30-17-30 - Chair: Ivana Savić

- 14:30 [David Prendergast](#), Lawrence Berkeley National Laboratory: *An efficient approach to capture quantum many-body effects in x-ray absorption spectra*
- 15:00 [John Buckeridge](#), University College London: *The competition between compact and diffuse states in wide-gap semiconductors*
- 15:30 *Coffee Break*
- 16:00 [Philip Bucksbaum](#), Stanford University & SLAC National Accelerator Laboratory: *Ultrafast x-ray movies of molecules*
- 16:30 [David Reis](#), Stanford University & SLAC National Accelerator Laboratory: *Ultrafast lattice dynamics*
- 17:00 [Stephen Fahy](#), University College Cork: *Conference closing*
- 19:00 *Dinner at [The Franciscan Well Brewery and Brewpub](#), 14 North Mall, Cork*

