

## GEOMETRIC NUMERICAL INTEGRATION

**Thursday 13 December PM**

CO 118

- 14.50–15.15 Laurent O. Jay  
*Butcher Trees and Curve Search in Nonlinear Optimization*
- 15.15–15.40 John Butcher  
*G-Symplectic General Linear Methods*
- 16.00–16.25 Yousaf Habib  
*Symplectic Methods with Transformations*
- 16.25–16.50 Dion O’Neale  
*Geometric Integration, High Oscillation and Resonance*
- 16.50–17.15 Klas Modin  
*On Explicit Adaptive Symplectic Integration of Separable Hamiltonian Systems*
- 17.15–17.40 Robert McLachlan  
*Achieving Brouwer’s Law of Round-off Error*

**Friday 14 December AM**

CO 118

- 9.50–10.15 Melvin Leok  
*Homogeneous Variational Integrators for Lagrangian Dynamics on Two-Spheres*
- 10.15–10.40 Mayya Tokman  
*Evaluating Performance of Exponential Integrators*
- 11.00–11.25 Allison Heard  
*Stability of Numerical Solvers for Ordinary Differential Equations*
- 11.25–11.50 Philip Zhang  
*Dynamics and Numerics of Some Generalised Euler Equations*
- 11.50–12.15 Will Wright  
*The Efficient Evaluation of Functions Related to the Matrix Exponential*
- 12.15–12.50 Reinout Quispel  
*Geometric Integration of Ordinary Differential Equations*

**Saturday 15 December AM**

COLT 122

- 11.50–12.15 Gustaf Söderlind  
*Adaptive Geometric Integration: Structural Aspects of Reversible Step Size Control*