












	Monday, 1st August	Tuesday, 2nd August	Wednesday, 3rd August	Thursday, 4th August	Friday, 5th August
9:00   9:45	Splitting methods with complex coefficients to the numerical integration of quantum systems <b>Sergio Blanes</b> University of Valencia, Spain	Multiscale methods and analysis for highly oscillatory Dirac equation <b>Weizhu Bao</b> National University of Singapore, Singapore 	Approximations of dispersive PDEs in the presence of low-regularity randomness <b>Yvain Bruned</b> University of Edinburgh	Thursday session starts at 10:00	Quantum computation and pathways for nonlinear partial differential equations <b>Nana Liu</b> Shanghai Jiao Tong University, China 
9:45   10:15	Coffee & Nibbles	Coffee & Nibbles	Coffee & Nibbles		Coffee & Nibbles
10:15   11:00	Solving the Time-Dependent Schrodinger Equation for Molecules using Grids or Gaussians <b>Graham Worth</b> University College London, UK	Quantum Annealing in Network Science <b>Catherine Higham</b> University of Glasgow, UK	Spin dynamics simulation algorithms with polynomial complexity scaling <b>Ilya Kuprov</b> University of Southampton, UK	10:00 AM No need for a grid: gaussians for the time-dependent Schrödinger equation <b>Simen Kvaal</b> University of Oslo, Norway	The review of computational approaches for the linear Klein-Gordon equations from low to high frequency regimes <b>Karolina Kropielnicka</b> Polish Academy of Sciences, Poland
11:00   11:30	Tensor-Train Chebyshev Method for Multidimensional Quantum Dynamics Simulations <b>Paul Bergold</b> University of Surrey, UK	Quantum photonics in microstructured optical fibre <b>Peter Mosley</b> University of Bath, UK	Challenges in paramagnetic NMR analysis <b>Elizaveta Suturina</b> University of Bath, UK	Bourgain techniques for error estimates at low regularity <b>Alexander Ostermann</b> University of Innsbruck, Austria	Numerical methods for computing ground states of spinor Bose-Einstein condensates <b>Yongyong Cai</b> Beijing Normal University, China 
11:30   12:00	Coffee Break	Coffee Break	Coffee Break	Coffee Break	Coffee Break
12:00   12:30	Quantum computation in chemistry: statistical phase estimation and error mitigation <b>Nick Blunt</b> Riverlane, UK	Variational quantum algorithms for nonlinear problems <b>Michael Lubasch</b> Quantinuum, UK	Scattering and uniform in time error estimates for splitting method in NLS <b>Chunmei Su</b> Tsinghua University, China 	Quantum computing's contribution to research projects at CERN: current status and prospects <b>Michele Grossi</b> CERN, Switzerland	Improved uniform error bounds on time-splitting methods for long-time dynamics of the nonlinear Klein-Gordon equation with weak nonlinearity <b>Yue Feng</b> National University of Singapore, Singapore
12:30   13:00	Towards more accurate Exchange-Correlation Functionals using Differentiable Programming <b>Sam Vinko</b> University of Oxford, UK	Eigenvalue decomposition on a quantum computer <b>Changpeng Shao</b> University of Bristol, UK	Unravelling the dynamics of open quantum systems <b>Xiantao Li</b> Pennsylvania State University, USA	Frozen Gaussian approximations for non-strictly hyperbolic systems <b>Lihui Chai</b> Sun Yat-Sen University, China 	TBC <b>Mohammadali Foroozandeh</b> University of Oxford, UK
13:00   14:15	Lunch	Lunch	Lunch	Lunch	
14:15   14:45	Exact splitting methods for quadratic evolution equations <b>Joackim Bernier</b> Nantes University, France	Calculation elements of extremely large matrix functions <b>Stefan Guettel</b> University of Manchester, UK		TBC <b>Christian Mendl</b> Technical University of Munich, Germany	 Remote speaker  <span style="border: 1px solid black; padding: 2px;">45 min</span> <span style="border: 1px solid black; padding: 2px;">30 min</span>
14:45   15:15	A unifying framework for perturbative exponential expansions <b>Fernando Casas</b> Jaume I University, Castellón, Spain	A practical approach on rational approximations to the action of unitary matrix exponentials <b>Tobias Jawecki</b> Vienna University of Technology, Spain	Tours	Time-dependent configuration-interaction singles, or the lowest-rank approach to multielectron quantum dynamics <b>Stefanos Carlstrom</b> Lund University, Sweden	
15:15   15:45	Coffee break	Coffee break		Coffee break	
15:45   16:15	Theory and simulations of ultrafast processes in molecules with the exact factorization <b>Federica Agostini</b> University of Paris-Saclay, France 	Quantum algorithms for Hamiltonian simulation with unbounded operators <b>Di Fang</b> University of California, Berkeley, USA 		An approach to low-regularity numerical approximations via decorated trees <b>Yvonne Bronsard Alama</b> Sorbonne University, France	
16:15   17:00	Quantum algorithms for eigenvalue problems <b>Lin Lin</b> University of California, Berkeley, USA 	Infinite Linear Algebra and Spectral Problems <b>Sheehan Olver</b> Imperial College London, UK		Taming the dynamical sign problem in diagrammatic algorithms for open quantum systems <b>Jianfeng Lu</b> Duke University, USA 	
17:00   18:00	Wine Reception				

19:00  
**Workshop Dinner**  
Aqua, Walcot Street, Bath BA1 5BD