

**CHAMPS Chemistry and Mathematics in Phase Space**  
**“Exact factorization, Geometric Phase and Bohmian mechanics“**

*Engineers House*

Talks. Allowing up to 40 Minutes with additional 10 minutes for questions

Monday 19th September		
9.00 - 9.30	<i>Registration</i>	<i>Engineers House</i>
9.40 - 10.30	<i>Welcome Remarks</i> <b>Eberhard Gross</b>	<i>Energy, momentum, and angular-momentum transfer between electrons and nuclei, and the mass of atoms in molecules</i>
<i>Coffee Break</i> 10.30		
11.00 - 11.50	<b>Ryan Requist</b>	<i>Nonadiabatic molecular geometric phase and new geometric quantities in the exact factorization method</i>
11.50 - 12.40	<b>Cesare Tronci</b>	<i>Koopman wavefunctions and mixed quantum-classical dynamics of pure-dephasing systems</i>
<i>Lunch</i> 1pm		
2.00 - 2.50	<b>Basile Curchod</b>	<i>Simulating the excited-state dynamics of molecules (with a hint of Exact Factorization and Bohmian Dynamics)</i>
2.50 - 3.40	<b>Dmitry Shalashilin</b>	<i>Multiconfigurational Ehrenfest methods of quantum dynamics and its connection with exact factorisation.</i>
<i>Tea Break</i> 4pm - close		
6.30 - late	<i>Dinner - Cotes Brasserie, Clifton Village</i>	<i>Bristol, Clifton Village, 27 The Mall, Clifton, Bristol. BS8 4JG</i>

**Tuesday 20th September**

<b>9.00 - 9.30</b>	<i>Day 2 arrival tea + coffee</i>	<i>Engineers House</i>
<b>9.40 - 10.30</b>	<i>Returning Remarks</i> <b>Stuart Althorpe</b>	<i>Geometric phase and the simplest chemical reaction</i>
<i>Coffee Break</i> <b>10.30</b>		
<b>11.00 - 11.50</b> <b>11.50 - 12.40</b>	<b>Artur F Izmaylov</b> <b>Rocco Martinazzo</b>	<i>Quantum Nonadiabatic Dynamics in the Moving Crude Adiabatic Representation</i> <i>Quantum theory of electronic friction</i>
<i>Lunch</i> <b>1pm</b>		
<b>2.00 - 2.50</b>	<b>Robert Littlejohn</b>	<i>Molecular Born-Oppenheimer quantum mechanics as a double gauge theory</i>
<i>Tea Break</i> <b>3pm</b>		
<b>3.30 - 4.00</b>	<i>Closing Remarks</i>	