

# Polarizability Brainstorming Session

Time	Monday, April 11	Time	Tuesday, April 12	Time	Wednesday April 13	Time	Thursday, April 14
9:00 – 9:30	<i>Commonalities regarding solvation &amp; non-uniform polarizability in solids and liquids</i> George Sawatzky (UBC)	9:00 – 9:45	<i>Coulombic systems in Mean-Field theory and beyond</i> Henri Orland (Institute of Theoretical Physics)	9:00 – 9:45	<i>Accounting for polarisation effects in biomolecular simulation</i> Wilfred F. van Gunsteren (ETH Zurich)	9:00 – 10:00	<i>Open Discussion</i>
9:30 – 10:00	<i>Non-uniform polarizability and propagation of electromagnetic waves and photonics</i> Jeff Young (UBC)	9:45 – 10:00	Discussion	9:45 – 10:00	Discussion		
10:00 – 10:15	<i>Coffee Break</i>	10:00 – 10:15	<i>Coffee Break</i>	10:00 – 10:15	<i>Coffee Break</i>	10:00 – 10:15	<i>Coffee Break</i>
10:15 – 10:45	<i>Solvation of ions and ion-ion interactions in polar liquids</i> Joerg Rottler (UBC)	10:15 – 11:00	<i>Molecular theory of solvation for chemistry, biochemistry, biophysics, and nanomaterials</i> Andriy Kovalenko (National Research Council, Canada)	10:15 – 11:00	<i>Ions at interfaces: Combining molecular dynamics simulations and continuum theory</i> Douwe Bonthuis (Oxford)	10:15 – 11:30	<i>General Discussion</i>
10:45 – 11:15	<i>Solvation and polarization in electro chemistry, batteries and fuel cells</i> Dan Bizzotto (UBC)	11:00 – 11:15	Discussion	11:00 – 11:15	Discussion		
11:15 – 12:00	<i>General Discussion</i>	11:15 – 12:00	<i>General Discussion</i>	11:15 – 12:00	<i>General Discussion</i>	11:30-12:00	<i>Concluding Remarks and Potential Follow-up</i>
12:00 – 1:30	<i>Lunch</i>	12:00 – 1:30	<i>Lunch</i>	12:00 – 1:30	<i>Lunch</i>	12:00-13:30	<i>Lunch</i>
13:30 – 14:15	<i>Role of polarizability in the structure and dynamics of liquid water</i> Marivi Fernandez Serra (Stony Brook)	13:30 – 14:15	<i>Onsager method for local fields in Relaxor Ferro-electrics: A baby problem of Solid Electrolytes</i> Chandra Varma (UCRS)	13:30 – 14:15	<i>Screening of excitations and small polarons in strongly correlated solids and solid surfaces</i> Hao Tjeng (MPI Dresden)	13:30 – 14:30	
14:15 – 14:30	Discussion	14:15 – 14:30	Discussion	14:15 – 14:30	Discussion		
14:30 – 15:15	<i>Hydration-shell boundary conditions enable accurate continuum models for solvent-shell response</i> Jaydeep Bardhan (Northeastern)	14:30 – 15:15	<i>Interfaces and surfaces of solids with polar terminations</i> Ilya Elfimov/George Sawatzky (UBC)	14:30 – 15:15	<i>Polarization induced renormalization of local interactions in strongly correlated electron systems</i> Jeroen van den Brink (IFW Dresden)	14:30 – 15:30	
15:15 – 15:30	Discussion	15:15 – 15:30	Discussion	15:15 – 15:30	Discussion		
15:30 – 15:45	<i>Coffee Break</i>	15:30 – 15:45	<i>Coffee Break</i>	15:30 – 15:45	<i>Coffee Break</i>		
15:45 – 16:30	<i>Ab-initio modeling of opto-electronic properties of polyatomic molecules in solvents and in proximity to a semiconductor nanoparticle</i> Alain Delgado Gran (U of Ottawa)	15:45 – 16:30	<i>Electron-electron interactions, screening and polarizability in quantum dots</i> Pawel Hawrylak (U of Ottawa)	15:45 – 16:30	<i>Quasi particle dynamics and interactions in non-uniformly polarizable solids</i> Mona Berciu (UBC)		
16:30 – 16:45	Discussion	16:30 – 16:45	Discussion	16:30-16:45	<b>Discussion</b>		
16:45 – 18:00	<i>General Discussion</i>	16:45-18:00	<i>General Discussion</i>	16:45-17:30	<i>General Discussion</i>		
18:30	<b>Reception</b>			18:30	<b>Speaker’s Dinner</b>		