

## WS06 - Magmatic Sulfide Deposits: From Research to Exploration

Day 1, September 16, 2017

- 8:30-10:00 **Lecture I (Ed Ripley)**  
Fundamentals, basic concepts, and classification
- 10:00-10:20 Break
- 10:20-12:00 **Lecture II (Chusi Li)**  
Modeling: mantle partial melting, parental magma estimation, fractional crystallization (MELTS simulation), sulfur content at saturation in magma, initial concentrations of PGE in magma, R-factors, sulfide liquid differentiation
- 12:00-2:00 Lunch/Nap
- 2:00-3:30 **Lecture III (Ed Ripley)**  
Application of Re-Os, Cu, and multiple S isotopes
- 3:30 -4:00 Break
- 4:00- 5:30 **Lecture IV (Steve Barnes)**  
Komatiite-related Ni deposits

Day 2, September 17, 2017

- 8:30 – 10:00 **Lecture V (Ed Ripley)**  
Intraplate magmatic Ni-Cu-(PGE) deposits
- 10:00 – 10:30 Break
- 10:30 – 12:00 **Lecture VI (Steve Barnes)**  
Sulfide textures (disseminated and net-textured ores, breccia textured ores), sulfide migration/infiltration
- 12:00 – 2:00 Lunch/Nap
- 2:00 – 3:00 **Lecture VII (Chusi Li)**  
Magmatic Ni-Cu deposits in convergent tectonic settings
- 3:00 – 3:20 Break
- 3:20 – 4:30 **Lecture VIII (Steve Barnes)**  
Time and length scales in dynamic ore forming processes, multi-scale and multi-cycle genetic model, with a participation exercise
- 4:30 – 5:30 **Lecture IX (Ed Ripley)**  
PGE deposits in large layered intrusions