



School of Earth Sciences Seminar Series

**Lluís Fontboté, University of Geneva, Switzerland - 2017 SEG
Distinguished Lecturer**

Cordilleran Polymetallic Deposits as a Class within Porphyry Systems

The School of Earth Sciences is pleased to invite you to a Lecture in the SES Seminar Series given by Lluís Fontboté entitled “Cordilleran Polymetallic Deposits as a Class within Porphyry Systems”

A late epithermal sulfide-rich polymetallic “Cordilleran” stage is a common feature in porphyry systems. It is frequently not economic (e.g. Chuquicamata and La Escondida, Chile), but in other cases, this stage may form large to world-class Zn-Pb-Ag±Cu±Au deposits. Examples are the “main stage veins” in Butte, USA; Morococha, Julcani, Colquijirca and Cerro de Pasco, Peru; Bor, Serbia; Erstberg, Indonesia. Cordilleran polymetallic deposits are typically found in the upper part of porphyry systems, where they may cut earlier veins with potassic and phyllic alteration assemblages, and occur as veins (mainly in magmatic and siliciclastic host rock) and as massive replacement bodies (mainly in carbonate host rock), as well as sulfide-cemented breccia bodies. Formation during short pulses subsequent (<1Ma) to porphyry and skarn mineralization by magmatic-dominated fluids reaching even levels close to surface and distinct paragenetic sequences (well zoned in terms of ore and alteration minerals if ore fluids are acidic and oxidizing) are key elements of the current genetic model. It is based on detailed field relationships, fluid inclusion studies, and geochemical and geochronological work on representative deposits. The occurrence of Cordilleran polymetallic mineralization can be used to explore hidden porphyry deposits.

Lluís (M.Sc., University of Granada, Spain; Ph.D., Heidelberg University, Germany) is a full professor at the University of Geneva, Switzerland, where he leads a research group that is active worldwide. His main area of expertise is epithermal polymetallic deposits linked to porphyry systems, iron oxide copper gold deposits, and MVT deposits. In collaboration with his students, Lluís has also published work focusing on VHMS and orogenic gold deposits, mainly in the Andes, as well as on acid mining drainage. Selected as an ‘SEG Distinguished Lecturer’ this year, Lluís travels to Perth with the support of the Society of Economic Geologists, and UWA SEG Student Chapter.

VENUE Woolnough Lecture Theatre (G.107), Geography and Geology Building
University of Western Australia, 35 Stirling Hwy, Crawley 6009
Pay parking is available along Fairway (approx. \$1per hour)

TIME **5:00 - 5:45pm Tuesday 8th August, 2017**

You are invited to join us afterwards for a BBQ to welcome our guest, and refreshments provided for sale by our local SEG Student Chapter in the Resource Room, Robert Street Building.

