## The influence of crustal-scale faults on fluid flow and heat transport

## SARAH HINDLE

Department of Earth Sciences, St. Francis Xavier University, Antigonish, Nova Scotia B2G 2W5

Crustal-scale faults in the Canadian Cordillera place important controls on fluid flux and the transportation of heat from depth back up to the surface by providing a high permeability conduit to channel fluids. 2D and 3D numerical modeling makes it possible to investigate and simulate the conditions present in these fault zones that may influence the circulation of fluid and heat. By comparing observational data with model output values, it is possible to constrain the parameters present in the subsurface and more accurately predict the distribution of thermal fluids.