

## Quantifying sediment provenance and basin thermal histories

Organizers: E. Enkelmann (U Calgary) and W. Matthews (U Calgary)

**Post-meeting workshop** - 1 day: Friday, September 25, 2020

The objective of this one-day course is to introduce geoscientists to the fundamentals of radiometric dating techniques and their use to study sediment basins. New developments in geo- and thermochronology techniques allow effectively dating large quantities of individual grains and the application of multiple methods on single grains. This offers to answer a wide range of geologic questions regarding sedimentary basins. These include:

- 1) sediment provenance and identify sediment recycling,
- 2) reconstructing the tectonic evolution of the sediment source region
- 3) quantifying maximum and minimum temperature of sediment burial
- 4) quantifying timing and rate of basin inversion
- 5) determining sediment deposition age
- 6) quantifying amount of removed sediment strata or tectonic overburden

Focus will be given to practical aspects that will allow scientists to choose the best method, conduct sampling in the field and core storage facilities, and project budgeting and time planning.

**Enrollment cap for workshop:** 25 attendees

**Cost of workshop:** \$CAD 250 (professionals); \$CAD 80 (students)

**What's included:** workshop booklet (e-copy), certificate

**Time and location:** 08:00-17:00 Friday September 25, 2020 Live Online (Zoom)