



# Linking ages to stages and dates to rates: progress in dating tectonic processes

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The rates and timescales over which plates interact during plate collisions provides constraints on the mechanisms by which crust is buried, transformed, deformed and recycled. Measuring the age of different geochronometer minerals precisely and accurately is now routine, but our understanding of how to link « age » to « stage » is lagging behind the analytical advances. High resolution *in-situ* laser ablation datasets commonly yield a protracted range of dates rather than a single « bulk » age, suggesting protracted crystallization over a range of PT conditions, inefficient resetting during cooling and exhumation or analytical mixing of growth zones. The interpretation of the dispersed ages hinges on additional chemical and/or textural data that tie the evolution of the geochronometer mineral to the pressure-temperature-deformation evolution of the rest of the rock. This seminar will discuss new « petrochronology » tools and applications that help provide a better key to unlocking how time is stored in deformed rocks during burial and exhumation.

**Jeudi 03 décembre 2015 à 11 h**  
**Salle de conférences d'ISTerre**

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