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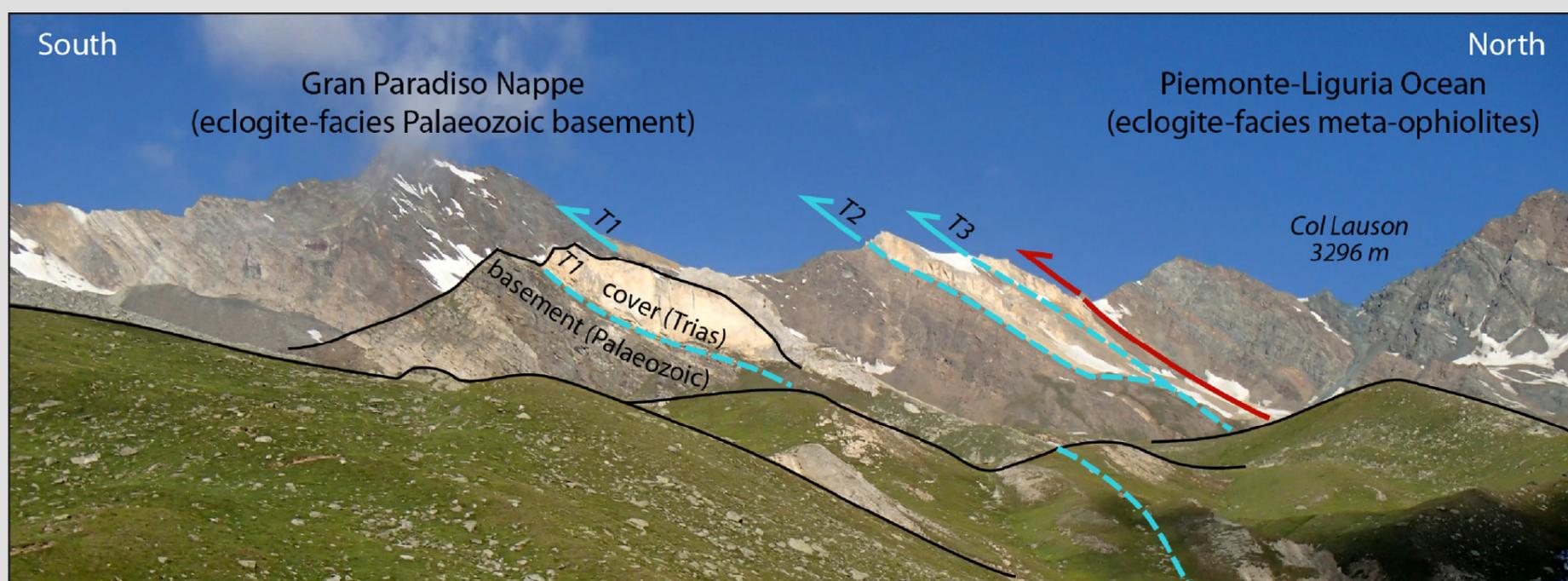
Ore 11 - Aula Palazzina, Dipartimento di Scienze della Terra, Torino
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Un occhio sul Paradiso: burial and exhumation of crustal-scale slices in the Western Alps

Michel Ballèvre
University of Rennes



Understanding the building of a mountain belt is a never-ending process, because new concepts open new windows, and new tools allows to answer old questions. The Gran Paradiso Massif will be taken as an example of this process. In a first step, field geology allows to draw maps and cross-sections (i.e. the geometry) and to study the deformation history (i.e. the kinematics). Petrological studies allow to unravel part of the burial and exhumation history of key samples, and geochronology gives time constraints on the P-T path. Finally, integration of all these data in a coherent picture requires consideration of mechanical processes at the mountain scale, and may provide clues about the dynamics of a convergent boundary between Europe and Adria.



The crest between the Gran Paradiso and the Grivola exposes one of the major tectonic boundaries in the Western Alps, namely the oceanic units on top of the continental margin

The Speaker

Michel Ballèvre is Emeritus Professor of Earth Sciences at the University of Rennes (Brittany, France). He has worked mainly on the Alpine and Variscan belts, and visited much older orogenic belts in India, Australia, China and Congo. His main interest is to approach large-scale tectonic processes with the eye of the petrologist, recognizing that the change of scale from thin section to metamorphic maps is the best way for deciphering the history of subduction/collision belts.

