



Photograph of the month

Photograph of the month: Large-scale basement-cover deformation in the Alps

La Meije thrust, French Alps, seen below the NW face of the eponymous mountain (3983 m) and the retreating Tabuchet glacier, viewed from the edge of the Plateau d'En Paris (45°52'56N, 06°17'25E) The visible relief is ca 2500 m high. The upper craggy mountainsides are pre-Triassic crystalline basement (gneiss and granite) that now overlie dark shales of Jurassic age that crop out in the v-cut ravines, along the floor of the main valley

continental crust of the former rifted margin of Europe, thickened to 45–50 km during Alpine orogenesis during the Oligo-Miocene. Understanding interactions between Cenozoic contractional tectonics and the legacy of Mesozoic rifting is key for developing tectonic models and balancing crustal cross-sections in the Alps and similar orogens, as discussed by Butler (2013). Photograph provided by Rob Butler, Aberdeen, UK.



and lie beneath the vegetated lower hillsides. The present-day contractional structure has partially obliterated major Jurassic normal faults (with original throws in excess of 1 km). These outcrops are part of a much-studied regional section along the Romanche valley described most recently by Dumont et al. (2011, *Tectonics* v 30). The high ground forms part of the Ecrins (Pelvoux) basement massif of the external Alps, the surface manifestation of

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