



## **Age and prematurity of the Alps**

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Although the Alps are among the best studied mountain ranges on Earth, the age of their topography is almost unknown. Even their relative stage of evolution is unclear: Are the Alps still growing, in a steady state or even decaying? Using the mean slope at given catchment size as a new geomorphic parameter we analyse the topography of the Alps. Our analysis provides one of the first quantitative constraints that shows that the range is still in its infancy: In contrast to several other mountain ranges, the Alps have still more than half of their evolution to a geomorphic steady state to go. Combining our results with sediment data from the surrounding accumulation spaces we infer that the formation of substantial topography began only 5-6 million years ago. Our results challenge a general consensus that the topographic evolution is distributed over much of the Miocene.