



Barchan dune fields

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In barchan dune fields, a statistically homogeneous state is observed along the wind direction over tens of kilometers. Barchan fields furthermore present a ‘corridor’ structure in the transverse direction, in which the dunes have a rather well selected size. We show that this state does not result from an equilibrium of each individual dune, but is the consequence of dynamical interactions between barchans as unstable objects. In particular, we demonstrate that none of the possible external parameters controlling these corridors (topography, granulometry, wind, sand flux) is relevant.