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*Trudinger-Moser type inequalities for weighted Sobolev spaces.*

We derive sharp Trudinger–Moser inequalities for weighted Sobolev spaces and we prove the existence of extremal functions. The inequalities we obtain here extend for fractional dimensions the classical results in radial case. The main ingredient used in our arguments reveals a new proof of a result due to J. Moser for which we give an improved version (Received February 22, 2015)