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Sharp Trudinger-Moser inequalities with homogeneous weights. (English) Zbl 1426.35006

Summary: We investigate sharp Trudinger-Moser type inequalities with the homogeneous weight satisfying a natural curvature-dimension bound condition. Also we study the optimal versions of these inequalities with best constants on both finite and infinite volume domains on Euclidean spaces.

MSC:
35A23 Inequalities applied to PDEs involving derivatives, differential and integral operators, or integrals
26D15 Inequalities for sums, series and integrals
46E35 Sobolev spaces and other spaces of “smooth” functions, embedding theorems, trace theorems
46E30 Spaces of measurable functions (L^p-spaces, Orlicz spaces, Köthe function spaces, Lorentz spaces, rearrangement invariant spaces, ideal spaces, etc.)

Cited in 1 Document

Keywords:
curvature-dimension bound condition; best constants; critical growth; exact growth condition

Full Text: Link

References:
(2017), no. 4, Art. 39, 21 pp. · Zbl 1375.35012


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