

Diophantine transference inequalities: weighted, inhomogeneous, and intermediate exponents

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Abstract. We extend the Khintchine transference inequalities, as well as a homogeneous-inhomogeneous transference inequality for lattices, due to Bugeaud and Laurent, to a weighted setting. We also provide applications to inhomogeneous Diophantine approximation on manifolds and to weighted badly approximable vectors. Finally, we interpret and prove a conjecture of Beresnevich-Velani (2010) about inhomogeneous intermediate exponents.

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