

Theorem (Robert J Berman & Bo Berndtsson) Let ϕ be plurisubharmonic in the unit ball, and assume that ϕ extends continuously to the closed ball with zero boundary value. Assume also that ϕ is S^1 -invariant, then its Schwarz symmetrization doesn't increase the Monge-Ampere energy.

Definition:

1) A function f is S^1 -invariant if $f(e^{i\theta}z) = f(z)$, $\forall \theta \in \mathbb{R}$.

2) If ϕ is a real valued function defined in a domain Ω in \mathbb{R}^n , its *Schwarz symmetrization* is a radial function $f(|x|)$, with f increasing, that is equidistributed with ϕ . Notice that f is radial, its domain of definition is a ball whose volume equals the volume of Ω .

3) Monge-Ampere energy : $\mathcal{E}(\phi) := \int (-\phi)(dd^c\phi)^n$