Estimates on Monge-Ampère operators derived from the Corti-Ein-Mustața inequality

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Abstract: We prove a new a priori estimate for the complex Monge-Ampère operator, according to which the inverse of the exponential of a plurisubharmonic function with isolated poles can be bounded in terms of its Monge-Ampère mass. The estimate is closely related to an inequality of local algebra proved a few years ago by Corti, Ein and Mustața. The proof rests on the approximation of general plurisubharmonic functions by Berman kernels and on general results concerning the semicontinuity of plurisubharmonic singularities. No direct analytic proof is known at present.