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Divisorial Zariski decomposition
and some properties of full mass currents

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Abstract. Let α be a big class on a compact Kähler manifold. We prove that a decomposition $\alpha = \alpha_1 + \alpha_2$ into the sum of a modified nef class α_1 and a pseudoeffective class α_2 is the divisorial Zariski decomposition of α if and only if $\mathrm{vol}(\alpha) = \mathrm{vol}(\alpha_1)$. We deduce from this result some properties of full mass currents.