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Transcendental Okounkov bodies

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Abstract

We show that the volume of transcendental big (1,1)-classes on compact Kahler manifolds can be realized by convex bodies, thus answering questions of Lazarsfeld–Mustata and Deng. In our approach we use an approximation process by partial Okounkov bodies, and we study the extension of Kahler currents. (Joint work with R. Reboulet, M. Xia, D. Witt Nystrom, K. Zhang).