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Grigoris Paouris* (grigoris@math.tamu.edu). *Small ball probability estimates, PSI_2 -behavior and the hyperplane conjecture.*

We introduce a method which leads to upper bounds for the isotropic constant. We prove that a positive answer to the hyperplane conjecture is equivalent to some very strong small probability estimates for the Euclidean norm on isotropic convex bodies. As a consequence of our method, we obtain an alternative proof of the result of J. Bourgain that every PSI_2 -body has bounded isotropic constant, with a slightly better estimate. This is a joint work with Nikos Dafnis. (Received September 07, 2009)