1.	Record Nr.	UNINA9910141918003321
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	Titolo	Approaching the Kannan-Lovász-Simonovits and Variance Conjectures / / by David Alonso-Gutiérrez, Jesús Bastero
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
	ISBN	3-319-13263-6
	Edizione	[1st ed. 2015.]
	Descrizione fisica	1 online resource (X, 148 p.)
	Collana	Lecture Notes in Mathematics, , 0075-8434 ; ; 2131
	Disciplina	515.7
	Soggetti	Functional analysis Convex geometry Discrete geometry Probabilities Functional Analysis Convex and Discrete Geometry Probability Theory and Stochastic Processes
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Bibliographic Level Mode of Issuance: Monograph
	Nota di contenuto	The Conjectures -- Main Examples -- Relating the Conjectures -- Appendix -- Index.
	Sommario/riassunto	Focusing on two central conjectures from the field of Asymptotic Geometric Analysis, the Kannan-Lovász-Simonovits spectral gap conjecture and the variance conjecture, these Lecture Notes present the theory in an accessible way, so that interested readers, even those who are not experts in the field, will be able to appreciate the topics treated. Employing a style suitable for professionals with little background in analysis, geometry or probability, the work goes directly to the connection between isoperimetric-type inequalities and functional inequalities, allowing readers to quickly access the core of these conjectures. In addition, four recent and important results concerning this theory are presented. The first two are theorems attributed to Eldan-Klartag and Ball-Nguyen, which relate the variance and the KLS conjectures, respectively, to the hyperplane conjecture. The remaining two present in detail the main ideas needed to prove the best known

estimate for the thin-shell width given by Guédon-Milman, and an approach to Eldan's work on the connection between the thin-shell width and the KLS conjecture.