
SPECTRA OF GRAPHS AND HYPERGRAPHS

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The spectral theory of the Laplace operator on graphs offers many analogies with that of Riemannian manifolds, like Cheeger type inequalities, but also shows some different phenomena. For hypergraphs, a main step consists in the definition of a Laplace operator that can also offer such analogies. Lovasz extensions of Rayleigh quotients can uncover some deeper reasons behind such analogies.