Positivity and spectral discreteness of the complex Laplacians

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Abstract

In this expository talk, we study spectral theory—particularly positivity and spectral discreteness—of the complex Neumann Laplacian. We aslo discuss analysis on the Diederich-Fornæss worm domains in connection with spectral and regulary theories of the $\bar{\partial}$ -Neumann problem. Part of this talk is based on joint work with Christine Laurent-Thiébaut adn Mei-Chi Shaw.