

Antti Perälä

University of Helsinki, Finland

antti.i.perala@helsinki.fi

The index formula of Douglas for Toeplitz operators on Bergman spaces

The index formula of Douglas is a formula which expresses the index of a Fredholm Toeplitz operator with a discontinuous symbol as the limit of the indices of a family of Fredholm Toeplitz operators with continuous symbols. We consider Toeplitz operators on Bergman spaces of the ball. The symbols are supposed to be discontinuous matrix functions satisfying a local ellipticity condition. The main result reduces the index computation for the Toeplitz operators under consideration to the case of continuous matrix symbols. (Joint with Albrecht Böttcher, TU Chemnitz)