**Meeting:** 998, Houston, Texas, SS 10A, Special Session on Complex Analysis and Operator Theory

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*Algebras of Bergman type operators with discontinuous coefficients.*

The C*-algebras generated by the Bergman and anti-Bergman projections and by the operators of multiplication by piecewise continuous functions on the Lebesgue space $L^2$ over the upper half-plane and over the unit disc are studied. Making use of a local principle, limit operators techniques, and the Plamenevsky results on two-dimensional singular integral operators with coefficients admitting homogeneous discontinuities we reduce the study to simpler C*-algebras. To study such algebras associated with discontinuities of coefficients on the domain boundary, we construct a symbol calculus for unital C*-algebras generated by a finite set of orthogonal projections sum of which equals the unit and by another finite set of one-dimensional orthogonal projections. Finally, a symbol calculus for the initial C*-algebra and a Fredholm criterion for the operators in this algebra are obtained. The talk is based on joint work with Lus Pessoa. (Received March 01, 2004)