

## **A Reflexivity Result Concerning Banach Space Operators with a Multiply Connected Spectrum**

Using the Scott Brown technique Ambrozie and Muller proved that the adjoint of a polynomially bounded operator on a Banach space whose spectrum contains the unit circle has a nontrivial invariant subspace. Once the existence of a nontrivial invariant subspace for an operator is proved, it is natural to ask whether the invariant subspace lattice is rich enough, in other words, whether the operator is reflexive or not. The reflexivity result which corresponds to Ambrozie and Muller's result was proved by Rejasse.

We had extended previously Ambrozie and Muller's result to operators with a multiply connected spectrum. The aim of this talk is to give a sketch of the proof for the corresponding reflexivity result. The proof relies on showing the existence of full analytic invariant subspaces, a technique which was pioneered by Olin and Thomson.