

COMPLEX ANALYSIS SEMINAR

CLOSED-RANGE COMPOSITION OPERATORS

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ABSTRACT: If ϕ is an analytic self-map of the open unit disk \mathbb{D} , then the composition operator C_ϕ maps most commonly studied spaces of analytic functions into themselves in a one-to-one and bounded fashion. We delineate a set of conditions on ϕ so C_ϕ is bounded below on the Bloch and Bergman spaces. In discussing the Bergman space, we relate behavior of composition operators to that of Toeplitz operators and use the connection to get necessary and sufficient conditions on ϕ . We conclude with an open question on Toeplitz operators.

Date: Thursday, March 22, 2012

Time: 4pm-5pm

Place: FH 1900

Webpage: <http://math.utoledo.edu/~sonmez/complexseminar.html>