

SCMS Seminar



TOEPLITZ OPERATORS ON FUNCTION SPACES

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SCMS

Time: 9:00 a.m.-9:30 a.m., Monday, June 6, 2016

Venue: Room 2201, East Guanghua Tower (Main), Fudan University

Abstract: In this talk, we will discuss some operator-theoretic properties of the Toeplitz operators on several function spaces. We consider the Toeplitz operators with nonnegative symbols on A_2 -weighted harmonic Bergman space and characterize their boundedness, compactness, Schatten classes and invertibility via Berezin transforms, Carleson and reverse Carleson measures. Moreover, we also study the invertibility problem of the Fock-Toeplitz operator with nonnegative symbol. Finally, we will discuss some new research progress on the invertibility problem of Bergman-Toeplitz operator with harmonic symbol.

$$b_i = \frac{\sum_{j=1}^{i-1} a_{ij} x_j^{(k)} + \sum_{j=i+1}^n a_{ij} x_j^{(k)}}{\sum_{j=1}^{i-1} a_{ij} x_j^{(k)} + \sum_{j=i+1}^n a_{ij} x_j^{(k)}}$$
$$\Delta y_i = \int_{x_i}^{x_{i+1}} \frac{y' dx}{\sqrt{(y_n + 0.5\tau k_1)^2 + (t_n + 0.5\tau)^2}}$$
$$\int_{x_k}^{x_{k+1}} f(x, y) dx = \int_{x_k}^{x_{k+1}} y' dx = y(x)$$