

Complex symmetric weighted composition-differentiation operators on Hardy-type spaces

By JUNMING LIU (Guangzhou), SAMINATHAN PONNUSAMY (Chennai)
and HUAYOU XIE (Guangzhou)

Abstract. In this note, we completely characterize the complex symmetric weighted composition-differentiation operator on the Hardy space H^2 with respect to the conjugation operator $C_{\lambda,\xi}$. The normal and self-adjoint of weighted composition-differentiation operators on the Hardy space H^2 are also studied. We also give the results on $S_{\alpha,\beta}^2$ and $\mathcal{H}_1^2(\mathbb{D})$.

JUNMING LIU
SCHOOL OF MATHEMATICS AND STATISTICS
GUANGDONG UNIVERSITY OF TECHNOLOGY
GUANGZHOU, GUANGDONG, 510520
CHINA

SAMINATHAN PONNUSAMY
DEPARTMENT OF MATHEMATICS
INDIAN INSTITUTE OF TECHNOLOGY MADRAS
CHENNAI-600 036, INDIA

AND
MOSCOW CENTER OF FUNDAMENTAL
AND APPLIED MATHEMATICS
LOMONOSOV MOSCOW STATE UNIVERSITY
MOSCOW
RUSSIA

HUAYOU XIE
SCHOOL OF FINANCIAL MATHEMATICS
AND STATISTICS
GUANGDONG UNIVERSITY OF FINANCE
GUANGZHOU, 510521
P. R. CHINA

Mathematics Subject Classification: 47B38, 30H10, 47A05.

Key words and phrases: weighted composition-differentiation operator, complex symmetric operator, Hardy space.