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Oberseminar Analysis und Theoretische Physik

Prof. Dr. Jani Virtanen

University of Reading and University of Helsinki

**Compactness and Schatten class properties
of Hankel operators on Fock spaces, and applications
to the Berezin–Toeplitz quantization**

Using the space IDA of locally integrable functions whose integral distance to holomorphic functions is finite, we characterize boundedness, compactness and Schatten class membership of Hankel operators on weighted Fock spaces. As an application, for bounded symbols f , we show that the Hankel operator H_f is compact (or in the Schatten class S_p) if and only if $H_{\bar{f}}$ is compact (or $H_{\bar{f}}$ is in S_p), which complements the classical compactness result of Berger and Coburn and extends Bauer's result on Hilbert-Schmidt Hankel operators. We also apply our results to the Berezin-Toeplitz quantization and answer a related question of Bauer and Coburn. Joint work with Zhangjian Hu.

Dienstag, 25.1.2022, 15:00 Uhr

Interessierte erhalten die Zugangsinformationen von
Herrn Prof. Dr. Wolfram Bauer (bauer@math.uni-hannover.de).

Mitglieder des Oberseminars haben Zugang über die Meetings der
StudIP-Veranstaltung "Oberseminar Analysis und Theoretische Physik".

Veranstalter:

Prof. Dr. Wolfram Bauer, Prof. Dr. Joachim Escher, Prof. Dr. Johannes Lankeit,
Prof. Dr. Elmar Schrohe, Prof. Dr. Christoph Walker