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Legendre-Fenchel Transform of the Spectral Exponent of Analytic Functions of Weighted Composition Operators

Let f be an analytic function with nonnegative coefficients. We derive the Legendre-Fenchel transform of the composition $\ln \circ f \circ \exp$ as a function depending on coefficients of f . We apply it to obtain the variational principle for the spectral exponent of operators that can be written as analytic functions of the weighted composition operators.

Keywords: Weighted composition operators, spectral radius, Legendre-Fenchel transform.

MSC: 47A10, 47B37, 44A15