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The trace operator of quasi-plurisubharmonic functions on compact Kähler manifolds

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Abstract

We introduce the trace operator for quasi-plurisubharmonic functions on compact Kahler manifolds, allowing us to study the singularities of such functions along submanifolds where their generic Lelong numbers vanish. Using this construction we obtain novel Ohsawa-Takegoshi extension theorems and give applications to restricted volumes of big line bundles (joint work with Mingchen Xia).