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Versions of injectivity and extension theorems. (Versions des théorèmes d’injectivité et d’extension.) (English. French summary) [Zbl 1401.14083]

Summary: We give an analytic version of the injectivity theorem by using multiplier ideal sheaves of singular hermitian metrics, and prove extension theorems for the log canonical bundle of dlt pairs. Moreover we obtain partial results related to the abundance conjecture in birational geometry and the semi-ampleness conjecture for hyperKähler manifolds.

MSC:
14E30 Minimal model program (Mori theory, extremal rays)
14F18 Multiplier ideals
32L10 Sheaves and cohomology of sections of holomorphic vector bundles, general results
32L20 Vanishing theorems
32J25 Transcendental methods of algebraic geometry (complex-analytic aspects)

Keywords:
injectivity theorem; extension theorem; abundance conjecture

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