

Towards a structure theory of Maharam algebras

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Maharam algebras are complete Boolean algebras that admit a strictly positive continuous submeasure. The famous Control Measure Problem (formulated by D. Maharam in the 1940s) asks if every Maharam algebra is in fact a measure algebra. This problem was resolved in 2005 by Talagrand who produced a counterexample. We survey some old and some new results on the structure of Maharam algebras. In particular, we discuss a construction (joint with Z. Perovic) of Maharam algebras of arbitrary high countable exhaustivity rank.