



复旦大学数学科学学院 数学综合报告会

报告题目：A survey on the Carlitz-Wan conjecture

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时间：2026-03-20 星期五 16:00-17:00

地点：光华东主楼1801

报告摘要：

The Carlitz-Wan conjecture is one of the most famous problems in the history of permutation polynomials and exceptional polynomials. In 1963, Carlitz and his student Cavior posed a special case of the Carlitz-Wan conjecture as a question. In 1991, Wan (万大庆) posed and proved in some cases a generalization of this question, which became known as the Carlitz-Wan conjecture. In 1994, Lenstra first proved the Carlitz-Wan conjecture in full generality. In 1997, Guralnick and Muller generalized the Carlitz-Wan conjecture to exceptional covers of curves. Recently, we studied the exceptional extensions of local fields, which led to different proofs of the result by Guralnick and Muller. In this talk, I will survey the history and various proofs of the Carlitz-Wan conjecture.

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