Finding Long Transversals in Latin Squares

Abstract: A transversal of a latin square of order $n$ is a subset of entries picked in such a way that each row, each column and each symbol is present at most once. In many latin squares, you can find a full transversal by selecting $n$ entries which do not duplicate any row, column or symbol. But what about when you can’t find a full transversal? Brualdi has conjectured that a transversal of length $n - 1$ is always present in any latin square. In this talk, we will discuss recent work which shows that for small orders, Brualdi’s conjecture holds. Moreover, we show that his conjecture also holds for small generalized latin squares as well.

EVERYONE IS WELCOME!

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