

Diophantine Equations and WM (weakly mixing) Sets

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We report on work largely carried out by Alexander Fish. The prototypical WM set is the set of indices for which a Bernoullian coin-toss turns up "Heads". For a broad class of diophantine systems of equations a set of solutions can be found in any set displaying "weak mixing statistics". Surprisingly for the simple equation $xy = z$ this is not the case.