

Multiplicative actions and applications.

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In this talk, I will discuss recurrence problems for actions of the multiplicative semigroup of integers. Answers to these problems have consequences in number theory and combinatorics, such as understanding whether Pythagorean trios are partition regular. I will present in general terms the questions, strategies from dynamics to address them and mention some recent results we obtained. This is joint work with Anh Le, Joel Moreira, and Wenbo Sun.