Online Number Theory Seminar

21 November 2025. – 17:00-17:50

S. Laishram: On Squares in an Arithmetic Progression.

A remarkable result of Erdős and Selfridge states that a product of two or more consecutive integers is never a perfect power. It is conjectured that a product of four or more consecutive terms of an arithmetic progression is never a perfect power. In this talk, I will consider the problem with emphasis on the square case and present some new results. I will also present some results on a related conjecture of Erdős and Rudin on the number of squares in an arithmetic progression of a given length.