

Debrecen Number Theory Seminar

21 April 2023. – 13:00-13:50

Location: M402

Gabriella Rácz: The  $r$ -Fubini–Lah numbers and polynomials

In our talk we define the  $r$ -Fubini–Lah numbers, which count those partitions of a finite set, where both the blocks and the partition itself are ordered, and  $r$  distinguished elements belong to distinct ordered blocks. In connection with these numbers, we introduce the  $r$ -Fubini–Lah polynomials, as well. We give a detailed overview of the properties of the  $r$ -Fubini–Lah numbers and polynomials. We prove two recurrences and a Dobinski type formula for them, we derive the exponential generating function of their sequences, and we investigate how they are connected with the  $r$ -Fubini numbers and polynomials.