

Debrecen Number Theory Seminar

9 June 2023. – 13:00-13:50

Location: M402

Szabó-Gyimesi Eszter : Associated r -Dowling numbers and some relatives

In our talk, we introduce and study a new generalization of Bell numbers by combining r -Bell numbers, associated Bell numbers and Dowling numbers. For defining these s -associated r -Dowling numbers, we partition elements into blocks so that r distinguished elements have to be in distinct blocks, the cardinality of certain blocks is bounded from below by s , and some elements are coloured according to a colouring rule. Along with them, we also define and investigate some relatives, the s -associated r -Dowling factorials and the s -associated r -Dowling–Lah numbers, when the underlying set is decomposed into cycles or ordered blocks.