

# A NOTE ON $p$ -ADIC VALUATIONS OF STIRLING NUMBERS OF THE SECOND KIND

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The Stirling number of the second kind  $S(n, k)$ , where  $n, k \in \mathbb{N}$ , counts the number of partitions of a set with  $n$  elements into exactly  $k$  nonempty subsets. The problem of  $p$ -adic valuations (with emphasis on 2-adic valuations) of Stirling numbers of the second kind and their relatives generated a lot of literature. It was considered by e.g. Lengyel, Clarke, De Wannemaker, Bennet and Mosteig. In 2008 Amdeberhan, Manna and Moll stated a conjecture on general description of 2-adic valuations of Stirling numbers of the second kind. Later, in 2010, Berrizbeitia, Medina, Moll, Moll and Noble generalized this conjecture on  $p$ -adic valuations of numbers  $S(n, k)$  for arbitrary prime number  $p$ . In this talk we will show results on  $p$ -adic valuations of numbers  $S(n, k)$  inspired by these conjectures.