

- MARIYA I. SOSKOVA, *The Turing universe in the context of enumeration reducibility*.
Faculty of Mathematics and Informatics, Sofia University, Bulgaria.
E-mail: `msoskova@fmi.uni-sofia.bg`.

In the mathematical analysis of the notion of definability we wish to understand how one object can be used to specify another. Depending on the mathematical nature of the objects in question and the method for the relative specification one can distinguish between many different approaches. In every case the approach gives rise to a reducibility between the objects, with a natural structural representation as a partial order, its degree structure, a model of relative definability.

The most studied model of relative definability between sets of natural numbers, is that of the Turing degrees based on the notion of Turing reducibility. A project by Ganchev, Soskov and Soskova is to examine the standard Turing model in a wider context, the structure of the enumeration degrees. The second structure is based on a weaker form of relative computability between sets of natural numbers, enumeration reducibility. We will describe this work, comparing results that have been obtained in each structure.