DEGREE SPECTRAS AND CO-SPECTRAS OF STRUCTURES

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Given a countable structure $\mathfrak{A}$, we define the degree spectrum $DS(\mathfrak{A})$ of $\mathfrak{A}$ to be the set of all enumeration degrees generated by the presentations of $\mathfrak{A}$ on the natural numbers. The co-spectrum of $\mathfrak{A}$ is the set of all lower bounds of $DS(\mathfrak{A})$. We prove some general properties of the degree spectra, which show that they behave with respect to their co-spectra very much like the cones of enumeration degrees. Among the results are the analogs of Selman’s Theorem [7], the Minimal Pair Theorem and the existence of a quasi-minimal enumeration degree.

Keywords: degree spectra, enumeration degrees

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