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A first Intermediate class with limit object

We introduce a unifying approach to structural limits, covering both Lovasz et al. left limit and Benjamini-Schramm limit. It is known that limit objects can be described, in these cases, either by a graphon or by a graphing. We define a new kind of measurable relational structure, called "modeling".

Answering a question of Lovasz, we explicitly construct a limit object (a limit modeling) for a class intermediate between dense graphs and graphs with bounded degrees, namely the class of rooted trees with bounded height. From this, we derive an explicit limit modeling for converging sequences of graphs with bounded tree-depth.