Michael Rathjen* (asl@vassar.edu), Ohio State University, Department of Mathematics, Columbus, OH. Independence and equiconsistency results in intuitionistic set theory.

The main tools for independence and relative consistency results in classical set theory are G"odels constructible hierarchy L (or other inner models) and the method of forcing. Intuitionistically L is not a particularly well-behaved class and thus doesn't play a significant role in intuitionistic set theory, while forcing is still an important tool. But there are many other model constructions and methods germane to intuitionistic set theory which do not have a direct counterpart in the classical world. Among them one finds realizability, Kripke, and sheaf models and also proof-theoretic methods. The intent of the talk is to survey some of these constructions and to present independence and equiconsistency results obtained through their employment. (Received September 20, 2006)