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Pavel Semukhin* (pavel@semukhin.name), Department of Computer Science, University of Regina, Regina, SK S4S 0A2, Canada, and **Frank Stephan**. *Automatic models of first-order theories*.

I will talk about our joint work with F. Stephan in which we studied several model-theoretic properties of automatic structures. The topic of this research is inspired by computable model theory. In particular, we are interested in which results about computable structures can be transferred to the field of automatic structures. Typical questions here are: (1) Given $n \geq 1$, is there a theory with exactly n automatic models? (2) Which models of an uncountably categorical theory can be automatic? (3) If the saturated model of a theory is automatic, is the prime model also automatic? and so on. I'll discuss our progress on the above mentioned questions and talk about related open problems. (Received December 01, 2011)