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Andrei A. Bulatov* (abulatov@cs.sfu.ca), School of Computing Science, Simon Fraser University, 8888 University Drive, Burnaby, BC V5A 1S6, Canada. *Counting constraint satisfaction problems.*

The Counting Constraint Satisfaction Problem ($\#CSP(\mathcal{H})$) over a finite relational structure \mathcal{H} can be expressed as follows: given a relational structure \mathcal{G} over the same vocabulary, determine the number of homomorphisms from \mathcal{G} to \mathcal{H} . We survey recent results on the complexity of this problem including a characterization of those relational structures \mathcal{H} for which $\#CSP(\mathcal{H})$ can be solved in polynomial time. (Received August 28, 2008)