

- S. MOJTABA MOJTAHEDI, *Reduction of Provability Logics to  $\Sigma_1$ -Provability Logics*.  
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This is a joint work with Mohammad Ardeshir.

We show that the provability logic of PA, GL, and the truth provability logic, i.e., the provability logic of PA relative to the standard model  $\mathbb{N}$ , GLS are reducible to their  $\Sigma_1$ -provability logics, GLV and GLSV, respectively, by only propositional substitutions.