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3 Overview of Talks

3.1 Who finds the short proof? Searching for Wormholes in Proof-Space

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Joint work of Christoph Benzmüller, David Fuenmayor, Alexander Steen, Geoff Sutcliffe
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In my talk I presented recently published results that had not been communicated at conferences or workshops before: An exploration of Boolos' Curious Inference using higher-order automated theorem provers (ATPs). Surprisingly, only suitable shorthand notations had to be provided by hand for ATPs to find a short proof. The higher-order lemmas required for constructing a short proof are automatically discovered by the ATPs. Given the observations and suggestions in this paper, full proof automation of Boolos' and related examples now seems to be within reach of higher-order ATPs.

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