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**William DeMeo\*** ([williamdemeo@gmail.com](mailto:williamdemeo@gmail.com)). *Formalizing Universal Algebra with Dependent and Inductive Types*. Preliminary report.

We introduce some practical aspects of our recently initiated project, “Formal Foundations for Informal Mathematics,” a goal of which is to formalize universal algebra in the Lean proof assistant.

We have implemented a small but growing collection of basic objects and theorems of universal algebra in Lean, exhibiting some of the power of inductive and dependent types. We review these recent developments and give a brief overview of the lean-uilib (our fledgling Lean library for universal algebra). (Received September 16, 2019)