Alice Medvedev* (medvedev.math.ccny@gmail.com) and Alexander Van Abel. Feferman-Vaught and the product of finite fields.

Macintyre and Derakhshan’s work on the model theory of the adeles inspired us to study definable sets in the product of all $\mathbb{Z}/p\mathbb{Z}$. Is torsion definable? Is the copy of $\mathbb{Z}$ definable? Where is this structure on the scale between decidable and Godelian? The Feferman-Vaught Theorem and Ax’s work on pseudofinite fields suffice to answer these questions. (Received July 16, 2019)