1078-08-281　　　　　**George McNulty** and **Ross Willard*** (`rdwillar@uwaterloo.ca`), Pure Math Dept, University of Waterloo, Waterloo, Ontario N2L 3G1, Canada. *Meditation on Isaev's algebra.* Preliminary report.

In 1989 I.M. Isaev published (in Russian) a family of finite non-associative bilinear algebras, each of which is inherently nonfinitely based. This family gives essentially the only known example of a finite algebra generating an inherently nonfinitely based congruence modular variety. After much time and effort, we believe that we finally understand the smallest member of this family, to the point of being able to show that it is inherently nonfinitely based already at the finite level. This shows that "Isaev's algebra" cannot give an answer to a long-standing question of Eilenberg and Schützenberger. Our proof depends in part on a fine analysis of the equational theory of the ring of lower-triangular 2×2 matrices over $GF(2)$. In this talk some of this stuff will be discussed. (Received December 12, 2011)