1152-15-9 **Manuel Kauers***, Altenbergerstrasse 69, 4040 Linz, Austria. *Making Many More Matrix Multiplication Methods.*

The usual way of multiplying two 3x3 matrices requires 27 coefficient multiplications. It is known since 1976 that the product can also be computed with only 23 coefficient multiplications, and it is an open question whether 23 is optimal. For 23, several non-equivalent ways for computing the product are known. We extend the list by more than 13000 new matrix multiplication schemes. In the talk we will explain how we found them. This is joint work with Marijn Heule (Austin) and Martina Seidl (Linz). (Received May 21, 2019)