1145-VQ-2858   **Christina Pospisil*** (`pospisil.christina@gmx.de`), Department of Mathematics, University of Massachusetts Boston, 100 William T. Morrissey Boulevard, Boston, MA 02125, and **Eric L Grinberg**. *Generalization Theory of Linear Algebra.*

We present an algorithm for multiplying and adding matrices regardless of dimensions via an embedding. We also investigate an equivalent embedding for a general determinant theory. In future work we will explore applications to physics and other natural sciences. (Received September 25, 2018)