

**Josue Tonelli-Cueto**

The University of Texas at San Antonio, United States

josue.tonelli.cueto@bizkaia.eu

In this poster, we provide new upper and lower bounds on the minimum possible ratio of the spectral and Frobenius norms of a (partially) symmetric tensor. In the particular case of general tensors our result recovers a known upper bound. For symmetric tensors our upper bound unveils that the ratio of norms has the same order of magnitude as the trivial lower bound  $1/n^{\frac{d-1}{2}}$ , when the order of a tensor  $d$  is fixed and the dimension of the underlying vector space  $n$  tends to infinity. However, when  $n$  is fixed and  $d$  tends to infinity, our lower bound is better than  $1/n^{\frac{d-1}{2}}$ .

*Joint work with Khazhgali Kozhasov (Technische Universität Braunschweig, Germany).*