

1135-15-1354      **Elina Robeva** and **Anna Seigal\*** ([seigal@berkeley.edu](mailto:seigal@berkeley.edu)). *Duality of graphical models and tensor networks.*

We give a duality between graphical models and tensor networks. Graphical models are a statistical tool for representing multivariate probability distributions in terms of conditional independence relations. Tensor networks are a graphical way to represent tensors. We also explore how certain algorithms translate under the duality correspondence. (Received September 21, 2017)