1154-18-2383   **Laura Wells Murray*** (`lwells@nd.edu`). *Higher categories and factorization algebras.*
Factorization algebras are a mathematical tool for modeling the observables of classical and quantum field theories. In this talk I will define equivariant factorization algebras, and compare them to a geometric version of factorization algebras which allows one to incorporate structures helpful for modeling physically relevant field theories. I will touch on the higher categorical structure that is involved in this comparison and how this can be used to describe a parameterized, or 'smooth', version of factorization algebras. (Received September 17, 2019)

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