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Jose A Perea* (joperea@msu.edu). *Synchronization problems in applied topology.*

Modern technologies have made commonplace the asynchronous collection of data, and its later storage in distributed systems. This has prompted a growing class of data science questions where localized measurements need to be globally aligned or assembled. In this talk we present recent work towards computing algebraic and topological constraints to general synchronization in several data science questions, and how to do local-to-global inference in the presence of non-trivial topological obstructions. (Received August 26, 2020)