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**Javier Arsuaga\*** (jarsuaga@ucdavis.edu), 1 Shields Avenue, Davis, CA 95616. *Chromosome conformation capture data suggests that the Rabl conformation reduces the topological complexity of the yeast genome.*

Genomes are highly condensed in all organisms. Theoretical studies suggest that condensation induces topological complexity in the form of knotting and linking. How organisms prevent excess knotting and linking so their genomes are fully functional remains to be determined. In this talk we use Chromosome Conformation Capture (CCC ) Data and statistical topology to show that the Rabl conformation, an organizational feature conserved through evolution, plays a key role in the topological simplification of the yeast genome during the early phases of the cell cycle. (Received February 19, 2018)