

Reading Course:

Course title: Theory of glasses and jamming

Description: The reading course will cover the replica theory of glasses in infinite dimensions and the connections to the jamming transition, following the book "Theory of Simple Glasses" by G. Parisi, P. Urbani and F. Zamponi (Cambridge University Press). This will be of interest to students who wish to learn about recent advances in the theory of structural glasses and jamming.

Topics: Infinite dimensional models, liquids in infinite dimensions, dynamics and thermodynamics, replica symmetry breaking solutions, complexity, the jamming transition.

Format: 6 - 8 chapters of the course text will be covered with participating students making presentations in turn, with instructor input to clarify doubts and explain details not accessible to students.

Credits: This course will be offered under course number JT 209, with 1:0 credits. Depending on the effort on the part of the students, a request may be made to increase the course credit to 2:0.