Mathematical Picture Language Seminar
Tuesday, May 24, at 9:30 a.m. EST

Zoom QR Code & Link:

https://harvard.zoom.us/j/779283357?pwd=MitXVm1pYUlJVzZqT3lwV2pCT1ZUQT09

Matrix models,
the enumeration of maps and
free probability

Alice Guionnet
École Normale Supérieure (ENS) de Lyon

Abstract: I will discuss the asymptotics of multimatrix models. In a small parameters (or high temperature) region, their free energy is well known to converge and to be related with the enumeration of maps. The latter can be proved by relating the so-called Dyson-Schwinger equations with Tutte surgery by nice pictures. In general, the convergence of the free energy is unknown, a problem which is closely related with the lack of a full entropy theory in free probability. We will discuss few models that can be analyzed, in particular in the large parameters (or low temperature) region.

https://mathpicture.fas.harvard.edu/seminar