

## Distinguished Speaker Lecture

# Brownian Geometry on the Sphere

WEDNESDAY, MAY 29, 2019 | 11:00 AM

Ziskind Building, Lecture Room 1, Weizmann Institute of Science

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Laureate of the 2019 Wolf Prize in Mathematics



Much recent work has been devoted to the metric properties of large random graphs drawn on the two-dimensional sphere, which are also called random planar maps. Starting from a triangulation of the sphere with a given number of faces (triangles) and chosen uniformly at random, one considers the metric space consisting of the vertex set of this triangulation equipped with the graph distance.

When the size of the triangulation tends to infinity, this suitably rescaled random metric space converges in distribution, in the Gromov-Hausdorff sense, to a random compact metric space called the Brownian sphere (or Brownian map).

We will survey recent results showing that the Brownian sphere is indeed a universal model of random geometry in two dimensions. We will also introduce related models such as the Brownian disk and the Brownian plane, and we will discuss their connections with the Brownian sphere.

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### Contact & Accessibility Issues

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