

**THE METRIC THEORY OF TEICHMÜLLER SPACES OF
COMPACT RIEMANN SURFACES:**
(A COURSE AT THE MORNINGSIDE CENTER OF MATHEMATICS,
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In this course, I will give an introduction to the Teichmüller and the Thurston metrics on the Teichmüller spaces of compact surfaces, with a stress on the comparison between the two metrics.

The outline is the following:

- 1: The Teichmüller metric: Definition and main properties.
- 2: The Thurston metric and the arc metric: Definitions and main properties.
- 3: Geodesics and anti-geodesics.
- 4: The Finsler structure.
- 5: Mapping class group actions.

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