

# Plancherel Lecture 2022

Monday October 10, 2022, 17:30

(Reception-apéro starts at 16:45)

University of Fribourg, Pérolles PER 21, Room G120

## Moon Duchín

Tufts University



## Graphs, partitions, and elections

Elections often take place in districts that divide up a country or region. Sometimes these are relatively fixed, like the cantons of Switzerland. What if you could re-draw the districts regularly and try to get advantage for one group over another group in the election? I'll discuss some mathematical ideas to sample districting plans with a random walk through the space of graph partitions. This leads to beautiful questions about the geometry of graphs and spanning trees. And it lets you see whether a plan is normal or extreme compared to the alternatives created through a neutral process. I'll tell you how the logic has been received by lawyers and judges in the United States.

The lecture will be followed by a **dinner**:

**registration by October 2** with [isabella.schmutz@unifr.ch](mailto:isabella.schmutz@unifr.ch)

<https://www3.unifr.ch/math/en/info/plancherel/>