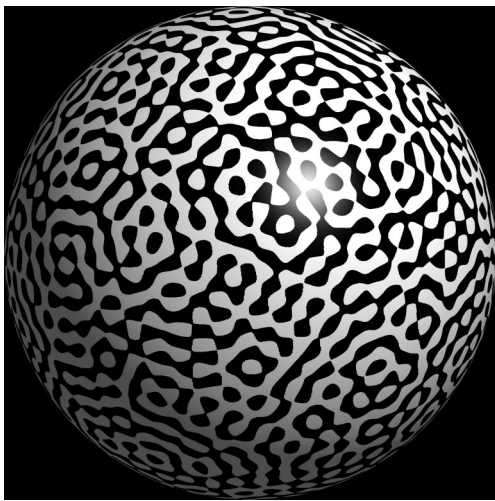Colloquium

Professor Aleksandr Logunov

The Massachusetts Institute of Technology
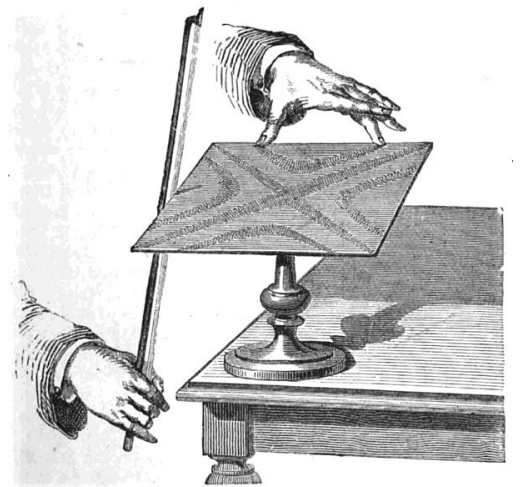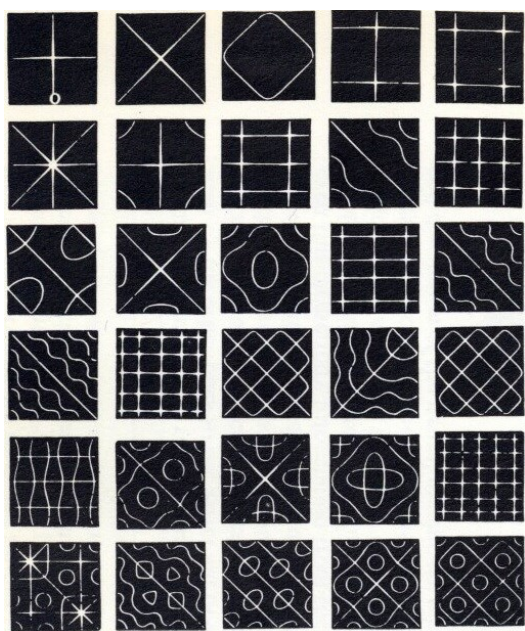## Monday, April 8, 2024
French Hall West, Room 4221
3:35-4:35pm

Courtesy of D.Belyaev

Nodal Geometry

William Henry Stone, Elementary Lessons on
Sound, Macmillan and Co., London, p. 26, fig. 12

Chladni's patterns published by John Tyndall in 1869.

In the beginning of the 19th century Napoleon ordered the Paris Academy of Sciences to set a prize for the best mathematical explanation of mysterious curves appearing in Chladni's resonance experiments. Nodal geometry studies the zeroes of solutions to elliptic differential equations such as the visible curves that appear in these physical experiments. We will discuss geometrical and analytic properties of the zero sets of harmonic functions and eigenfunctions of the Laplace operator.

**Refreshments will be served 2:45-3:15pm in the Faculty Lounge
4118 French Hall West**

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