Thursday, March 21, 2019 4:30–5:20 p.m. SAS 2102

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## A story of two postulates

Irina Kogan

"I have traversed this bottomless night, which extinguished all light and joy of my life. I entreat you, leave the science of parallel alone."

So wrote the Hungarian mathematician Farkas Bolyai to his son János, horrified at the thought that his son was attracted by the problem of parallels. János was not deterred, however, and discovered, simultaneously with Lobachevski, a consistent geometry in which the Euclidean parallel postulate does not hold. We will zoom through a path of mathematical thought that took over 2000 years, noticing which results from a high school geometry textbook do not rely on the parallel postulate, and which are altered completely in **hyperbolic geometry**.

**NCSU Society for Undergraduate Mathematics** 

Mathematics and pizza!

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