Tuesday, November 10, 2020, at 10:00 (Boston)
15:00 (UK/Eire)   16:00 (C.Europe)   23:00 (China)

Mathematical Picture Language Seminar

Zoom at: https://harvard.zoom.us/j/779283357?pwd=MitXVm1pYUlJVzZqT3lwV2pCT1ZUQT09

"Learning to Unknot"
Sergei Gukov, California Institute of Technology

Abstract: How does a child learn to speak, without prior direct communication, nor with having dictionary to translate words from another language? How do we learn to play chess, with no prior intuition about a myriad of different positions on the board nor with tactics to achieve those positions? How do scientists manage to move into the unknown, with no one guiding them through the right steps? And, how do they discover the previously unknown "right steps," tools, and techniques in the first place? Curiously, there are many questions like these, which we face on a day-to-day basis and to which we have no good answers. Yet, we all find ways to make progress. How is it possible? We will take a look at this magic process by putting the smooth 4-dimensional Poincaré conjecture into the framework of Natural Language Processing (NLP).