



THE WEIZMANN INSTITUTE OF SCIENCE  
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE

Algebraic Geometry and Representation Theory Seminar

on Wednesday, May 19, 2021  
at 16:30

<https://weizmann.zoom.us/j/98304397425>

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Anabelian construction of  $\phi$ ,  $\Gamma$  modules

Abstract:

Anabelian geometry asks how much can we say about a variety from its fundamental group. In 1997 Shinichi Mochizuki, using  $p$ -adic Hodge theory, proved a fundamental anabelian result for the case of  $p$ -adic fields. In my talk I will discuss representation theoretical data which can be reconstructed from an absolute Galois group and also types of representations that cannot be constructed solely from it. I will also sketch how these types of ideas can potentially give many new results about  $p$ -adic Galois representation