

1165-22-231

Jessica Fintzen* (fintzen@math.duke.edu), Trinity College, Cambridge, CB2 1TQ, United Kingdom. *Representations of p -adic groups and applications*. Preliminary report.

The Langlands program is a far-reaching collection of conjectures that relate different areas of mathematics including number theory and representation theory. A fundamental problem on the representation theory side of the Langlands program is the construction of all (irreducible, smooth, complex) representations of p -adic groups.

I intend to provide an overview of our understanding of the representations of p -adic groups, with an emphasis on recent progress, and outline some applications, for example to automorphic representations. (Received January 18, 2021)