

## **BIG PARABOLIC EIGENVARIETIES AND IWASAWA THEORY**

DAVID LOEFFLER

Eigenvarieties, as usually studied, parametrise automorphic representations satisfying an ordinarity / finite-slope condition for a Hecke operator coming from a Borel subgroup. I will show that if one replaces the Borel with a more general parabolic  $P$ , there are not one but two natural theories, leading to very different geometric objects: the "big" and the "small"  $P$ -eigenvariety. The "small"  $P$ -eigenvariety (studied in various previous works) has smaller dimension than the usual Borel eigenvariety, although it sees more classical forms. However, its "big" brother gets larger, not smaller, as we move away from the Borel.