

BOSTON UNIVERSITY NUMBER THEORY SEMINAR

Potentially Semi-Stable Pseudodeformation Rings

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Monday, Nov 17 at 4:15 pm

111 Cummington Street, MCS B21

Tea and cookies in MCS 144 at 4:00 pm

Abstract: Much attention has been directed toward Galois representations with coefficients in complete local rings, especially Galois deformation rings. However, there exist families of Galois representations that are not local. Our first main result is to understand the geometry of such families. Then, we show that conditions such as “potentially semi-stable” can be imposed on these non-local families, generalizing results of Kisin from the local case. As a consequence, we produce potentially semi-stable deformation rings for pseudorepresentations.