THE FIELDS INSTITUTE

ABSTRACTS 1.2

FOR RESEARCH IN MATHEMATICAL SCIENCES

GEORGE PAPPAS Michigan State University

Local models for Shimura varieties

We will discuss the concept of a local model of a Shimura variety at a place of non-smooth reduction and give some examples. If time permits we will explain how to modify the Rapoport-Zink local models when the group is ramified to account for the failure of their flatness conjecture in this case and describe some progress towards the calculation of nearby cycles of the modified local models. (joint work with M. Rapoport.)