THE FIELDS INSTITUTE

ABSTRACTS 1.2

FOR RESEARCH IN MATHEMATICAL SCIENCES

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Converses to the inequality of Mazur

Mazur's inequality says that the Hodge polygon of an F- crystal lies below the Newton polygon of the underlying F-isocrystal. I will explain the group-theoretic meaning of this simple but basic fact, and will give converses to this inequality, with applications to the description of the points of an isogeny class in the reduction of Shimura varieties.