

April 15: Qëndrim Gashi (MPI Bonn), “A converse to Mazur’s inequality.” Followed by dinner. Given an isocrystal N and a lattice M in it, Mazur proved that the Hodge vector of M lies above the Newton vector of N . The converse to Mazur’s Inequality, due to Kottwitz and Rapoport, is the assertion that given a vector v that lies above the Newton vector of N (and satisfies certain obvious conditions), there exists a lattice M whose Hodge vector is equal to v . These statements can be viewed as statements for the group GL_n and it is known that they can be formulated for other reductive groups. We prove the (generalized) converse to Mazur’s Inequality for split and quasi-split groups and discuss some implications of the proof.