

Fixed points in spherical buildings (and why I care about them)

Michael Bate (York)

In the 1950s Jacques Tits formulated a conjecture about spherical buildings, which he had recently invented. In the intervening years, several important special cases of this conjecture have been proved, but the full conjecture is still open. In this talk I will try to explain what spherical buildings are and what Tits's conjecture says about their structure. I'll illustrate the various known cases with some straightforward examples which shouldn't need more than a smattering of linear algebra and some geometric intuition. If time permits I'll also detail my small contribution to the effort to prove the full conjecture.