

CHARACTER SPACES FOR LOCALLY ANALYTIC TORI

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Let $\mathbb{Q}_p \subseteq L \subseteq K$ be a chain of finite field extensions of \mathbb{Q}_p . Let T be a locally analytic torus over L i.e. the group of L -rational points of a linear algebraic torus over L . Its locally analytic representation theory over the field K can be studied via the structure of its associated character space. The latter is a certain rigid K -analytic variety \hat{T}_K parametrizing the one dimensional representations of the torus and having an interesting geometry. In this talk we give a computation of the Picard group and the Grothendieck group of \hat{T}_K - at least in low dimensions.