

On L-packets and depth for $SL_2(K)$ and its inner form

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Let K be a local non-archimedean field of characteristic two. We prove that the depth of any irreducible representation of $SL_2(K)$ is larger than the depth of the corresponding Langlands parameter, with equality if and only if the L-parameter is essentially tame.

We also work out a classification of all L -packets for $SL_2(K)$ and for its non-split inner form, and we provide explicit formulae for the depths of their L -parameters. This is a joint work with Anne-Marie Aubert, Roger Plymen and Maarten Solleveld.