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Jiwon Kim*, kim609@indiana.edu. *Fixed points and period spaces and conjugacy classes.*

Fixed points and period spaces and conjugacy classes

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Abstract Let $\mathcal{F}^{wa} = \mathcal{F}^{wa}(\mathbb{G}, \mathcal{N})$ be a p-adic period space, and $J^{\mathbb{G}} = \underline{Aut}^{\otimes}(N^{\mathbb{G}})$ be the associated automorphism group of the G -isocrystal. Then we get that $J^{\mathbb{G}}$ is an inner form of G . Let j be a regular elliptic element $J^{\mathbb{G}}(\mathbb{Q}_p)$, and denote by $Fix(j|\mathcal{F}^{wa})$ the set of fixed points of j on \mathcal{F}^{wa} . Let $x_0 \in Fix(j|\mathcal{F}^{wa})$ be a 'base point'. One can then associate to any $x \in Fix(j|\mathcal{F}^{wa})$ of j a rational conjugacy class in $G_{\mathcal{F}_{x_0}}$. I study this map from $Fix(j|\mathcal{F}^{wa})$ to the set of rational conjugacy classes in $G_{\mathcal{F}_{x_0}}$.

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