

1167-11-42

Igor V. Nikolaev*, Da Silva Academic Center, St. John's University, 300 Howard Avenue,
Staten Island, NY 10304. *Langlands reciprocity for C^* -algebras.*

We introduce a C^* -algebra \mathcal{A}_V of a variety V over the number field K and a C^* -algebra \mathcal{A}_G of a reductive group G over the ring of adèles of K . Using Pimsner's Theorem we construct an embedding $\mathcal{A}_V \hookrightarrow \mathcal{A}_G$, where V is a G -coherent variety, e.g. the Shimura variety of G . The embedding is an analog of the Langlands reciprocity for C^* -algebras. It follows from the K -theory of the inclusion $\mathcal{A}_V \subset \mathcal{A}_G$ that the Hasse-Weil L -function of V is a product of the automorphic L -functions corresponding to irreducible representations of the group G . Reference: <https://arxiv.org/abs/1505.03054> (Received February 08, 2021)