

Department of Mathematics, BGU

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# Representation Theory

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*On Wednesday, May, 2 2018*

*At 10:10 – 12:00*

*In 58-201*

Dr. Dani Szpruch, (Open University)

will talk about

## **On the local coefficients matrix**

Abstract: Langlands Shahidi method is one of the two main approaches for defining and studying automorphic L-functions. This method is centered around Shahidi local coefficients which are analytic invariants associated with certain induced representations on linear groups. These coefficients arise from a uniqueness result known as uniqueness of Whittaker model. Among the local applications of these coefficients one finds irreducibility results and a formula for Plancherel measures. In the context of metaplectic groups, which are non-linear covering groups, uniqueness of Whittaker model does not hold anymore. Yet, an analog for these coefficients exists, dating back to Kazhdan-Patterson seminal work on the theta representations. In this talk we shall give new and simple interpretation to this analog for coverings of p-adic  $SL(2)$  and  $GL(2)$  and relate them to Tate gamma factors. We shall also give new formulas for the Plancherel measures and explain how to define gamma factors associated with covering groups using the local coefficients matrix.