## "Group Theory International" Online Seminar

## **Artem Dudko**

(Stony Brook University)

"On spectra and spectral measures of Koopman, groupoid and quasi-regular representations"

Thursday, March 17, noon (New York Time)

We discuss relations between spectra and spectral measures of operators of representations listed in the title. We show that for an ergodic countable group action on a standard Borel space, the associated groupoid representation is weakly equivalent to almost all quasi-regular representations and is weakly contained in the Koopman representation (joint result with R. Grigorchuk). Our key example is actions of groups on rooted trees. We show that for a countable group acting on a rooted tree by almost finitary automorphisms the corresponding Kesten-Neumann-Serre measure coincides with certain spectral measure of to the groupoid representation.

