1153-46-172 **KUN WANG*** (kun.wang@upr.edu), Department of Mathematics, University of Puerto Rico, Rio Piedras, San Juan, PR 00931. *About the invariants for classification of $C^*$-algebras.*

In this talk, I will introduce different kinds of invariant for classification of $C^*$-algebras, such as the Elliott invariant, extended Elliott invariant, Stevens invariant, $\mathrm{inv}_0(\cdot)$ and $\mathrm{inv}(\cdot)$. I will show some classification results to let you know how powerful those invariants are. Furthermore, I will study the relation between those invariant.

The extended Elliott invariant contains the Elliott invariant and all extended valued traces. It characterizes the ideal structure of $C^*$-algebras. I will show that the extended Elliott invariant and Stevens invariant are equivalent when we consider stably finite $C^*$-algebras with the ideal property. For invariants $\mathrm{inv}_0(\cdot)$ and $\mathrm{inv}(\cdot)$, where the former is a subset of the latter, I will show that they are equivalent for AH-algebras with finitely many ideals. (Received August 26, 2019)