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Sanghoon Baek and **Rostislav Devyatov*** (deviatov@mccme.ru), 585 King Edward, Ottawa, Ontario K1N0G8, Canada, and **Kirill Zainoulline**. *On invariant ideals of representation rings of semisimple groups.*

The talk is based on my joint work with Sanghoon Baek and Kirill Zainoulline, see arXiv:1612.07278.

To any semisimple group G over an algebraically closed field of characteristic 0, one can associate its weight lattice Λ , the set of fundamental weights, and the Weyl group W acting on Λ . One can consider the Laurent polynomial ring $\mathbb{Z}[\Lambda]$ and the *augmented orbit polynomials*. These polynomials generate an ideal $I \subset \mathbb{Z}[\Lambda]$.

One can also consider the character lattice of the maximal torus of G : $T^* \subseteq \Lambda$ and the corresponding Laurent polynomial subring $\mathbb{Z}[T^*] \subseteq \mathbb{Z}[\Lambda]$.

The ideals $I \subset \mathbb{Z}[\Lambda]$ and $I \cap \mathbb{Z}[T^*] \subset \mathbb{Z}[T^*]$ can be used to compute the ring $K_0(X)$, where X is a variety over a (possibly non algebraically closed field) whose algebraically closed form is the variety of complete flags of G .

If certain conditions on T^* and Λ are satisfied, I will try to explain the approach used in our paper to find an explicit description the intersection $I \cap \mathbb{Z}[T^*]$. (Received March 21, 2017)