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Arkady Berenstein (arkadiy@uoregon.edu) and **Jacob Greenstein***
(jacob.greenstein@ucr.edu). *Double canonical bases.*

The aim of this talk is to introduce a new class of bases for quantized universal enveloping algebra and other doubles attached to semisimple and Kac-Moody Lie algebras. These bases contain dual canonical bases of upper and lower halves of the quantum group and are invariant under many symmetries including, in the semisimple case, all Lusztig's symmetries. It also turns out that a part of a double canonical basis spans its center. We expect that double canonical bases carry a cluster-like structure extending that on the upper and lower halves. (Received January 19, 2015)