1077-16-2239 **Christof Geiss*** (christof@matem.unam.mx), Ciudad Universitaria, Mexico, D.F. 04510, **Bernard Leclerc** (bernard.leclerc@unicaen.fr), Caen, France, and **Jan Schroeer** (schroer@math.uni-bonn.de), Bonn, Germany. *Cluster structures on quantum coordinate ring.* Preliminary report.

We show that the quantum coordinate ring of the unipotent subgroup N(w) of a symmetric Kac-Moody group G associated with a Weyl group element w has the structure of a quantum cluster algebra. This quantum cluster structure arises naturally from a subcategory C_w of the module category of the corresponding preprojective algebra. An important ingredient of the proof is a system of quantum determinantal identities which can be viewed as a q-analogue of a T-system. In case G is a simple algebraic group of type A, D, E, we deduce from these results that the quantum coordinate ring of an open cell of a partial flag variety attached to G also has a cluster structure. (Received September 21, 2011)