## Abstract

This talk is our recent work on invariant theory of quantum symmetric spaces of symplectic and orthogonal types. We explicitly realize the quantum symmetric spaces as subrings of the quantum coordinate ring and study the relations among the quantum determinant, the Sklyanin determinant of orthogonal and symplectic types, and their associated quantum Pfaans. We will generalize several classical identities such as Jacobi identities, Cayley's complementary identities, Sylvester identities, and the minor identities in both orthogonal and symplectic types as well as their Pfaan analogues. This is joint work with Jian Zhang.