

Toric mirror symmetry via Seidel representation

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Seidel representation associates to a Hamiltonian circle action on a symplectic manifold an invertible element of the quantum cohomology. A lift of this representation to quantum D-modules is given by shift operators. In this talk, I will present a "tautological" mirror construction for toric varieties using the Seidel representation and shift operators. A mirror is given by a certain "universal" Laurent polynomial whose exponents are supported on the fan. The Givental I-function and the mirror map can be also determined by the Seidel (shift) representation.