Mirror Symmetry for Dubrovin-Zhang Frobenius Manifolds

A Frobenius manifold is a complex manifold with a certain algebraic structure on its tan-gent bundle, and some additional axioms. They arise in various different contexts in mathematics, with the main sources being quantum cohomology, singularity theory and Lie theory. In 1998, Boris Dubrovin and Youjin Zhang constructed Frobenius structures on the orbit space of a certain extension of affine Weyl groups associated to simple complex Lie algebras. In this talk I will, after introducing the concept of Frobenius mani-folds, explain what mirror symmetry means in this context, and present the results of a recent preprint where we obtain B-model mirrors for all Dubrovin-Zhang manifolds de-fined in 1998. If time permits, I will also mention an interesting application of this work. This is joint work with Andrea Brini and based on arXiv: 2103.12673.