Cohomologies of quantum shuffle algebras In this talk I will explain an inductive construction of quantum shuffle algebras associated to Cartan matrices which allows us to establish a non-commutative analog of the Borel-Weil-Bott theorem of these (co)algebras. If time permits, I will mention, as an application, how to factorize the negative part of a quantum group into quadratic Hopf algebras and some perspectives.