Universal Groebner bases and Cartwright-Sturmfels ideals

I will introduce a family of multigraded ideals named after Cartwright and Sturmfels, and defined in terms of properties of their multigraded generic initial ideals. By definition, a multigraded ideal I is Cartwright-Sturmfels if it has a radical multigraded generic initial ideal. Our main technical result shows that the family of Cartwright-Sturmfels ideals is closed under several natural operations, including multigraded linear sections and multigraded eliminations. Connection to universal Groebner bases for determinantal ideals will be discussed. Joint work with Aldo Conca (University of Genoa, Italy) and Emanuela De Negri (University of Genoa, Italy).