Polymatroidal Tilings associated to Limit Linear Series

Eduardo Esteves

IMPA

Limits of linear series along a degenerating family of curves have been studied for over a century, with increased interest after the seminal work on curves of compact type by Eisenbud and Harris in the 1980's. We show that the collection of limits of linear series for a degeneration to any nodal curve gives rise to certain polymatroidal tilings of certain Euclidean spaces, one of them appearing in work by Lafforgue after pioneering work by Kapranov in the 1990's. This is joint work with Omid Amini (École Polytechnique, France).