

1165-16-102

**Marcelo Aguiar\*** (maguiar@math.cornell.edu) and **Swapneel Mahajan**. *Hopf theory relative to a hyperplane arrangement*.

The talk is based on recent and ongoing work with Swapneel Mahajan in which we introduce and develop a theory of Hopf monoids relative to a real hyperplane arrangement. Many concepts and results from the classical theory of connected Hopf algebras extend to this level. The talk will be limited to presenting the geometric considerations at the basis of the theory, leading to the definition of Hopf monoid relative to an arrangement. (Received January 14, 2021)