TOPOLOGY SEMINAR

Duals of P-algebras and their comodules

By

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Abstract: P-algebras are connected graded cocommutative Hopf algebras which are unions of finite dimensional Hopf algebras (which are also Poincare duality algebras). These are quasi-Frobenius algebras and have some remarkable homological properties. The motivating examples for which the theory was produced are the Steenrod algebra at a prime and large sub and quotient Hopf algebras.
The dual of a P-algebra is a commutative Hopf algebra and I will discuss some homological properties of its comodules. In particular there is a large class of coherent comodules which admit finitely generated projective resolutions, but finite dimensional comodules have no non-trivial maps from these.
Using some Cartan-Eilenberg spectral sequences this can be applied to show that certain Bousfield classes of spectra are distinct, thus extending results of Ravenel.

Date: April 26, 2021
Time: 13:30 UTC+3
Place: Zoom

To request the event link, please send a message to cihan.okay@bilkent.edu.tr