

On the shape of Betti diagrams of edge ideals

Sara Asensio

University of Valladolid, Spain

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Since edge ideals were first introduced in 1990, they have been a clear example of the connection between commutative algebra and graph theory. In this talk, we will focus on the study of Betti diagrams of this type of ideals using a combination of homological and combinatorial tools that allow us to take advantage of the properties of some associated graphs. In particular, we will provide families of graphs whose associated edge ideals have somehow special characteristics.