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(α, β)-Modules in Graphs

We introduce the notion of an (α, β)-module, a relaxation that allows a bounded number of errors in each node and maintains some of the algebraic structures. This leads to a new combinatorial decomposition with very interesting properties. In this talk, we'll discuss minimal (α, β)-modules, (α, β)-modular decomposition trees, (α, β)-cographs, and other new findings and interesting conjectures on this new decomposition.

Joint work with Michel Habib, Eric Sopena, and Mengchuan Zou.