

**CONFERENCE ON GEOMETRIC METHODS
IN REPRESENTATION THEORY**

SCHEDULE CHANGE (LAST TWO TALKS IN ROOM 110 MLH)

Monday, November 24	
9:30-10:00	Chinburg (118 MLH) <i>Invariants of quadratic forms.</i>
10:00-10:10	Questions
10:10-10:40	Coffee and move to parallel talks
10:40-11:00	Beil (110 MLH) <i>Towards homological smoothness for dimer algebras.</i> Meyer (118 MLH) <i>Universal deformation rings for extensions of finite subgroups of $GL_2(\mathbb{C})$.</i>
11:00-11:10	Questions
11:10-11:30	Li (110 MLH) <i>Koszul property of infinite EI categories.</i> Soto (118 MLH) <i>Universal deformation rings and semidihedral 2-groups.</i>
11:30-11:40	Questions
11:40-12:00	Abdulwahid (110 MLH) <i>Generators for comonoids and universal constructions.</i> Wackwitz (118 MLH) <i>Versal deformation rings and Brauer tree algebras.</i>
12:00-12:10	Questions
12:10-12:30	Galetto (110 MLH) <i>Equivariant resolutions of De Concini-Procesi ideals.</i> Koffi (118 MLH) <i>Deformations of incidence algebras and cohomology.</i>
12:30-12:40	Questions

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Generators for comonoids and universal constructions.

We investigate cofree coalgebras in some abelian monoidal categories of interest, such as bimodules over a ring, and modules and comodules over a bialgebra or Hopf algebra. We find concrete generators for the categories of coalgebras in these monoidal categories, and explicitly construct cofree coalgebras and products of coalgebras in these categories. This answers an open question on the existence of a cofree coring, and constructs the cofree (co)module coalgebra on a B -(co)module, for a bialgebra B .