

# Classical W-algebras and generalized Drinfeld-Sokolov hierarchies

*Friday, June 7, 2024 9:30 AM (50 minutes)*

Classical affine W-algebras  $W(\mathfrak{g}, O)$  are algebraic structures associated to a simple Lie algebra  $\mathfrak{g}$  and a nilpotent orbit  $O$ . In this talk we want to review their definition, the construction (for all but seven nilpotent orbits for exceptional Lie algebras) of an integrable hierarchy of PDEs known as generalized Drinfeld-Sokolov hierarchy and how to derive the tau-structure of the hierarchy.

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