Let $G_{\mathbb{R}}$ be the real points of a complex linear reductive group and \hat{G}_{λ} its classes of irreducible admissible representations with infinitesimal integral regular character λ . In this case each cell of representations is associated to a special nilpotent orbit. This helps organize the corresponding set of irreducible Haris-Chandra modules. I will describe algorithms for identifying the special nilpotent orbit attached to a cell in terms of descent sets appearing in the cell. This is joint work with Thomas Folz-Donahue, Steven Glenn Jackson, and Todor Milev.

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