- **Reflections on/in superintegrable models**
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The paradigm example of a quantum system whose Hamiltonian involves reflection operators is that of the parabosonic oscillator in one dimension. Upon combining such models, one constructs Dunkl oscillators. This talk will discuss simple systems of that type in two dimensions that exhibit superintegrability. The symmetries will be seen to realize novel algebraic structures with involutions. Their representations will also be shown to offer a simple context in which many of the recently found -1 orthogonal polynomials occur.
(Based on joint work with V.X. Genest, M.H.E. Ismail and A. Zhedanov.)