

**Bipartite distance-regular graphs with exactly two
irreducible T -modules with endpoint 2, both thin**

Štefko Miklavič

University of Primorska

stefko.miklavic@upr.si

Mark MacLean

Seattle University

macleanm@seattleu.edu

Let Γ denote a bipartite distance-regular graph with diameter $D \geq 4$ and valency $k \geq 3$. Let X denote the vertex set of Γ . Fix $x \in X$ and let $T = T(x)$ denote the corresponding Terwilliger algebra of Γ . In this talk we consider the situation where, up to isomorphism, Γ has exactly two irreducible T -modules with endpoint 2, and they are both thin. Our main result is a combinatorial characterization of this situation.