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Title of Talk: Knots, ortho-projection matrices and Jones polynomials.

Abstract:

We present an algorithm that converts an alternating knot diagram into an ortho-projection matrix over the two-element field, and we explain how to obtain the Jones polynomial of the knot from the matrix. We give examples of ortho-projection matrices that do not arise from knot diagrams, and examine the Jones polynomials that correspond to these matrices.