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**Tuesday, April 27, 2021, at 10:00 (Boston)
15:00 (UK/Eire) 16:00 (C.Europe) 22:00 (China)
Mathematical Picture Language Seminar**

Zoom at: <https://harvard.zoom.us/j/779283357?pwd=MitXVm1pYUIJVzZqT3lwV2pCT1ZUQT09>

**Dimerization in quantum spin chains with $O(n)$ symmetry
Bruno Nachtergaele, University of California Davis**

Abstract. We consider spin- S quantum spin chains with a family of $O(2S+1)$ -invariant nearest-neighbor interactions and discuss the ground state phase diagram of this family of models. Using a graphical representation for the partition function, we give a proof of dimerization for an open region in the phase diagram, for all sufficiently large values of S . (Joint work with Jakob Bjoernberg, Peter Muehlbacher, and Daniel Ueltschi).



