

## **abstract**

Special Lecture  
Topic:

Speaker:

Affiliation:

Date:

Time/Room:

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The random loop representations of Toth ('93) and Aizenman-Nachtergaele ('94) can be extended to describe certain  $SU(2)$ -invariant spin-1 Heisenberg models. Quantum spin correlations are given in terms of loop correlations. Existence of long-range order can be proved with the method of reflection positivity and infrared bounds of Froehlich, Simon, Spencer ('76). Rather surprisingly, it applies to a regime of parameters where the quantum system is not reflection positive, and the results are distinct from those of Dyson, Lieb, Simon ('78).