Symmetries and degeneracies of quantum spin chains

Rafael Nepomechie
University of Miami, USA

2018年7月9日(周一) 下午15:30
磁共振楼10楼1016-17报告厅

About the speaker:

Rafael Nepomechie obtained his PhD in theoretical physics at the University of Chicago. He held postdoctoral positions at Brandeis University and the University of Washington before coming to the University of Miami, where he is now a Professor of Physics. His current research is on quantum integrable models and their applications to AdS/CFT. He has published over 100 papers and has lectured on 6 continents. He is a Fellow of the Institute of Physics, member of the Editorial Board of Journal of Physics A, and Fellow of the Editorial College of SciPost.

Abstract:

The spectrum of a quantum spin chain can have degeneracies, which can be understood from the model's symmetries. We consider here the symmetries and degeneracies of anisotropic integrable open spin chains, which are associated to affine Lie algebras $\hat{g}$. These spin chains have quantum group symmetries corresponding to removing one node from the $\hat{g}$ Dynkin diagram. Based on recent work with A. Retore (arXiv 1802.04864) and R. Pimenta (arXiv 1805.10144).