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APPLICATIONS OF COVERING MAPS TO SPECTRAL THEORY OF GRAPHS

Angelo L Chandler Jr. *Worcester Polytechnic Institute*

Diane M Lunman *Nazareth College of Rochester NY*

Abstract of Talk: Angelo Chandler Jr. Diane Lunman (Robert Marciniak, Jordan Volz)

The spectrum of a graph is the set of roots of the characteristic polynomial of its adjacency matrix. A covering map between graphs relates the spectrum of the base and the cover, through divisibility of characteristic polynomials. Using this and iso-spectral graphs we produce infinite sequences of graphs with nice properties.