

1116-VI-2825 **Keivan Hassani Monfared*** (k1monfared@gmail.com) and **Bryan Shader**. *Using the Jacobian method to solve structured inverse eigenvalue problems.*

For a family of matrices \mathcal{F} we want to find a matrix $A \in \mathcal{F}$ such that A satisfies some spectral properties \mathcal{P} , e.g. when \mathcal{F} is the set of real symmetric matrices whose graph is a given graph G , and \mathcal{P} is the property of having a spectrum Λ .

In this talk, we will illustrate when we have a solution for a graph G , how some *genericity* conditions enable us to use the Jacobian method to add in edges and find a solution for the new graph \hat{G} . (Received September 22, 2015)