1050-05-105 **V. Nikiforov*** (vnikifrv@memphis.edu). *The spectral radius of monotone graph properties.* Preliminary report.

A graph property is a class of graphs closed under isomorphisms. A property P is said to be monotone if $G \in \mathcal{P}$ and $H \subset G$ imply that $H \in \mathcal{P}$.

Write $|G|$ for the order of a graph G and $\mu(G)$ for the spectral radius of its adjacency matrix. Given a property $\mathcal{P}$, define the function

$$f_{\mathcal{P}}(n) = \max\{\mu(G) : G \in \mathcal{P},\ |G| = n\}.$$

In the recent years $f_{\mathcal{P}}(n)$ has been determined or approximated for a vast number of graph properties. This talk will present some general new results related to $f_{\mathcal{P}}(n)$ for a monotone graph property $\mathcal{P}$. (Received March 01, 2009)