Kate J Lorenzen* (klorenzen@linfield.edu). Spectral Properties of the Exponential Distance Matrix.
Given a graph $G$, the exponential distance matrix is defined entry-wise by letting the $(u, v)$-entry be $q^{\text {dist }(u, v)}$ where $\operatorname{dist}(u, v)$ is the distance between the vertices $u$ and $v$ with the convention that if vertices are in different components, then $q^{\text {dist }(u, v)}=0$. We establish several properties of the characteristic polynomial (spectrum) for this matrix and the inertia of some graph families. (Received August 10, 2021)

