1125-VF-597 **Jason J Molitierno*** (molitiernoj@sacredheart.edu), Department of Mathematics, 5151 Park Avenue, Sacred Heart University, Fairfield, CT 06825. *Maximal outerplanar graphs whose algebraic connectivity is at most one.*

The Laplacian matrix L for a graph G is the matrix $L = D - A$ where D is the diagonal matrix of the vertex degrees and A is the traditional adjacency matrix. The Laplacian matrix is positive semidefinite with eigenvalues $0 = \lambda_1 \leq \lambda_2 \leq \ldots \leq \lambda_n$. The eigenvalue λ_2 is known as the algebraic connectivity $a(G)$ of a graph. In this talk, we investigate the algebraic connectivity of maximal outerplanar graphs. We outline a proof that shows that if G is a maximal outerplanar graph on $n \geq 12$ vertices, then $a(G) \leq 1$ where equality holds on exactly two maximal outerplanar graphs on 12 vertices. The proof relies heavily on vertex labellings. (Received September 07, 2016)