

1135-30-1155

**Myrto Manolaki\*** ([mmanolaki@usf.edu](mailto:mmanolaki@usf.edu)). *The problem of existence of universal Taylor series.*

The theory of universal Taylor series has connections with various branches of Analysis, ranging from Operator Theory to Potential Theory. This talk is concerned with one of the most fundamental questions of the area: Given a planar domain  $G$  and a point  $w$  in  $G$ , is it possible to find a holomorphic function on  $G$  with the property that the partial sums of its Taylor expansion about  $w$  can approximate every plausible function outside  $G$ ? It is known that, in the case where  $G$  is simply connected, most holomorphic functions possess such universal Taylor expansions. However, the multiply connected case is not properly understood. We will discuss some results which aim to shed some light on the above open problem. (Received September 19, 2017)