Stony Brook Math Club

Student talk

with Jason Liu, Daley McMahon, and Bryan Wong

"Beyond Pólya's shire theorem"

A fundamental concept in complex analysis is recognizing that the locations and multiplicities of zeros and poles almost completely determine members of certain classes of complex functions. A natural extension of this is to ask: given a holomorphic or meromorphic function, what can be said about the zeros of arbitrarily high-order derivatives, and what does it imply about the behavior of its derivatives?

We discuss our work on this problem for meromorphic and entire functions during the 2023 Summer Math REU and discuss our experience in the program, then concluding with a short panel to address questions about the Summer Math REU.

Thursday, November 9, 2023 7:00–8:00 pm in P-131, Math Tower