

1135-35-2027 **Vera Mikyoung Hur***, 1409 W Green St, Urbana, IL 61801. *Instabilities of Stokes waves.*

In the 1980s, MacKay and Saffman made a signature argument to determine when the collision of a pair of purely imaginary eigenvalues for the linear water wave problem is avoided or lead to loss of stability of a Stokes wave. I will use a spectral perturbation approach to rigorously justify this. I will discuss results from numerical computation. (Received September 25, 2017)