

Abstract Submitted  
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**Instability of micro jet impinging onto a pool** MAOYING ZHOU,  
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gineering, Tsinghua University, JUN ZOU, The State Key Lab of Fluid Power &  
Mechatronic Systems, Zhejiang University — A micro liquid jet discharged into a  
downstream pool exhibits different instabilities at certain heights. For some nozzle  
heights, the water jet shows a steady wavy profile while for some other heights,  
the water jet oscillates around the nozzle axis at given frequency. A series of ex-  
periments are conducted to identify the regimes of jet state with respect to nozzle  
heights, Reynolds numbers and Weber numbers. For the oscillation regime, oscillat-  
ing characteristics of the jet are investigated in terms of different liquid properties.  
A simple model is developed to describe and explain the phenomena.

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