

Heat Transfer of an Impinging Jet on a Plane Surface

Authors : Jian-Jun Shu

Abstract : A cold, thin film of liquid impinging on an isothermal hot, horizontal surface has been investigated. An approximate solution for the velocity and temperature distributions in the flow along the horizontal surface is developed, which exploits the hydrodynamic similarity solution for thin film flow. The approximate solution may provide a valuable basis for assessing flow and heat transfer in more complex settings.

Keywords : flux, free impinging jet, solid-surface, uniform wall temperature

Conference Title : ICAM 2015 : International Conference on Applied Mechanics

Conference Location : Amsterdam, Netherlands

Conference Dates : May 14-15, 2015