

1106-35-2716

Karen Yagdjian* (yagdjian@utpa.edu), Department of Mathematics, University of Texas-Pan American, 1201 West University Drive, Edinburg, TX 78539. *Integral transform approach to the initial-value problem for the evolution equations.*

In this talk we describe some integral transform that allows to write solutions of the problem for one partial differential equation via solution of another one. This transform was used to investigate several well-known equations such as the Tricomi equation, the Klein-Gordon equation in the de Sitter and Einstein-de Sitter spacetimes. A generalization given in this talk allows us to consider also generalized Tricomi equation, the Euler-Bernoulli beam equation, and the Klein-Gordon equations with coefficients depending on the spatial variables. (Received September 16, 2014)