

中央研究院數學研究所

Institute of Mathematics, Academia Sinica

Taipei Postdoc Seminar

Speaker : 陸冰滢 Bingying Lu (本所 Academia Sinica)

Title : Riemann-Hilbert problem and Painlevé-I equation

Abstract :

In this talk I will define what is a Riemann-Hilbert problem, give an elementary example. Then I will present the solution of the Riemann-Hilbert that gives rise to solution of Painlevé-I equation. Next I will show the Schlesinger transformation of this solution, which will lead to a different solution.

In the end I will discuss how these two solutions are related to the universality phenomenon in nonlinear wave equations, and the Dubrovin universality conjecture.

This talk is intended for general mathematics audience. No specialized knowledge is assumed. I will walk you through concrete examples and elementary computations.

Time : 11:00 - 12:30, Wednesday, September 18, 2019

Venue : Room 638, Astro-Math. Buidling (NTU Campus)

Organizer : Sheng-Fu Chiu (Academia Sinica), Jia-Yuan Dai (National Center for Theoretical Sciences)

Refreshment : 10:30

https://www.math.sinica.edu.tw/www/file_upload/conference/2016TPS/index.html

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