



THE UNIVERSITY OF TEXAS
AT DALLAS

Dr. Yi Zhang, PhD

February 14, 2019

Professor and Head Gemai Chen
The Department of Mathematical Sciences
Xi'an Jiaotong-Liverpool University
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Dear Professor and Head Gemai Chen,

I am writing to apply for a lecturer position posted in the website of Xi'an Jiaotong-Liverpool University. As requested, I am enclosing a cover letter, my current curriculum vitae, research plan, teaching philosophy and a list of reference providers.

Previously, I was a PhD student in a joint PhD program between China and Austria under the supervision of Prof. Ziming Li and Prof. Manuel Kauers. I got my PhD degree from University of Chinese Academy of Sciences on July, 2016. Afterwards, I got my PhD degree from Johannes Kepler University Linz on February, 2017. Then I worked as a postdoc researcher at RICAM, Austrian Academy of Sciences with Prof. Christoph Koutschan until August, 2018. Currently, I am working as a research associate and also a lecturer at Department of Mathematical Sciences, The University of Texas at Dallas with Prof. Carlos E. Arreche.

The opportunity posted in the website of UTD is quite interesting for me, and I believe that my education and experience in difference/difference algebra and computer algebra systems (such as Maple, Mathematica) will make me a competitive candidate for this position. I got a Distinguished Student Author Award at ISSAC 2016 for my work on "Contraction of Ore Ideals with Applications". For details, see my curriculum vitae.

Recently, I have joint work with Dr. N. Thieu Vo concerning Laurent series solutions of algebraic ordinary differential equations. There, we utilize both computer algebra and differential algebra to study this problem in an algorithmic way. For the details, please see my research statement. Currently, I am considering two problems concerning symbolic solutions of algebraic differential/difference equations. With your expertise in differential/difference algebra, we may find some common topics in those areas and work together in the future.

Thank you for your time and consideration. I look forward to speaking with you about this employment opportunity.

Sincerely,

Dr. Yi Zhang, PhD