



## *Sparse Metric Repair and Distance Release*

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**Time:** 9:00-10:00 (Time in Beijing)  
13:00-14:00 (Time in Auckland)  
July 30, 2021 (Friday)  
**VooV Meeting ID:** 747 545 809

**Abstract:** Metric data plays an important role in various settings, for example, in metric-based indexing, clustering, classification, and approximation algorithms in general. Often such tasks require the data to be metric, though for various reasons this basic property may not be satisfied. The first part of this talk I will discuss is the metric repair problem, which seeks to minimally modify the data to make it metric, and thereby finding the nearest metric data set. Also the generalized graph metric repair problem will be discussed, where there are no longer constraints on all pairs. In the second part of the talk, I will discuss problems involving differential privacy, including privately releasing approximate distances between all pairs of vertices. The goal is to minimize the approximation error, namely the difference between the released distance and actual distance under private setting.

**Speaker Bio:** Dr. Fan earned his PhD in Computer Science at UT Dallas, 2019. He moved to Paris working as a postdoctoral fellow after graduation. Later, he was selected as a Zuckerman postdoc. His research interests lie broadly in algorithms, computational geometry, and differential privacy.

**Chengdu Algorithms and Logic Seminar** is a series of online seminars organized by School of Computer Science and Engineering, University of Electronic Science and Technology of China, and School of Computer Science, University of Auckland that aims to promote collaborations in a broad range of topics in algorithms and logic.

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