## 2019 NCTS Workshop on Scientific Computing and Machine Learning

Date 2019/12/28 Venue R202, Astro-Math Bldg.

## Aim & Scope:

We are in an era that experiences the explosion of data. The amount of data and available computing power has resulted in many exciting advancements of machine learning algorithms and applications. However, there are still many essential questions left unanswered. How do we harvest a large amount of available data to extract knowledge and insights? Particularly the cases in which one can generate the data by scientific computing algorithms that can simulate to great accuracy some systems that abide by known physical laws? How can mathematical theory and scientific computing insights help explain or design new ways to uncover information from data?

In this workshop, we have speakers from the fields of applied mathematics, scientific computing, and machine learning, presenting their latest research. The objective is two-fold: discover how state-of-the-art machine learning framework and algorithms can enable the advancement of scientific computing, and how scientific computing techniques can improve and generalize machine learning models and computation.

## **Invited Speakers:**

Chih-Wei Chen
Ray-Bing Chen
Albert Chern
Thomas Hou
Yuh-Jye Lee
Guan-Ju Peng
Pei-Chiang Shao

National Sun Yat-sen University
National Cheng Kung University
Technische Universität Berlin
California Institute of Technology
National Chiao Tung University
National Chung Hsing University
Soochow University
The University of Texas at Austin

## **Organizers:**

Richard Tsai

I-Liang Chern
Jann-Long Chern
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