

# Foreword

The 5th International Workshop on Systems and Network Telemetry and Analytics (SNTA 2022), a full-day meeting at the HPDC 2022 conference in Minneapolis, United States, aims at bridging the systems and network telemetry and the latest advances in machine learning and data science technologies, to advance the performance and reliability of HPC and distributed systems.

HPC and distributed systems are the driving force for the advancement of many emerging technologies, such as exascale systems, quantum machines, terabit networking, 5G/6G wireless, and cloud/edge computing. The tasks of systems and network telemetry are a key element for effective operations and management of these systems, by offering comprehensive monitoring and analysis capabilities to provide visibility into what is occurring at any time. The tasks will be significantly complicated with the greater complexity of computing systems, increasing network speed, and the mobile and IoT devices. Such changes and advances in technology will require more scalable telemetry and analysis techniques for data-driven diagnostics and deeper data analysis. In addition to the quantitative and qualitative challenges, data pressure in systems and networks also comes from various sources such as end systems, switches, firewalls, intrusion sensors, and the emerging network elements speaking with different syntax and semantics, which makes organizing and incorporating the generated data difficult for comprehensive analysis. This workshop looks for new approaches and methods at the intersection of HPC systems and data sciences to address these difficult challenges of emerging technologies from the diverse angles of systems/network performance, availability, reliability, and security.

After having virtual conferences in the past two years, we look forward to moving beyond the COVID-19 pandemic and having an in-person meeting for this year's workshop. We would like to thank all authors who submitted to the workshop. The diverse submission and selection assure interesting discussions and most importantly out-of-the-box thinking and generation of new ideas during the workshop. We'd also like to thank the keynote speakers who gave excellent presentations on very interesting and relevant topics to the workshop. We are grateful to the program committee, who worked very hard in reviewing papers and providing constructive feedback for authors.

## ***SNTA'22 Workshop Co-Chairs***

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**Jerry Chou** *National Tsing Hua University, Taiwan*

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