[The 10th Mining and Learning from Time Series Workshop: From Classical Methods to LLMs (MILETS 2024)]: Call for Papers

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Workshop CFP Webpage: **https://kdd-milets.github.io/milets2024/#call**

The 10th Mining and Learning from Time Series Workshop: From Classical Methods to LLMs

(MILETS 2024)

Aug 25th, 2024 - KDD 2024, Barcelona, Spain

Website: **https://kdd-milets.github.io/milets2024/**

KEY DATES

Paper Submission Deadline: June 14, 2024, 11:59PM Alofi Time (GMT-11)
Author Notification: June 28, 2024
Camera Ready Version: July 10, 2024
Workshop: August 25, 2024

MiLeTS is the premier KDD workshop on Mining and Learning from Time Series and has been organized for the past 9 years.

Time series data is ubiquitous. In domains as diverse as finance, entertainment, transportation, and health care, we observe a fundamental shift away from parsimonious, infrequent measurement to nearly continuous monitoring and recording. Rapid advances in diverse sensing technologies, ranging from remote sensors to wearables and social sensing, are generating rapid growth in the size and complexity of time series archives. Thus, although time series analysis has been studied extensively, its importance only continues to grow. What is more, modern time series data pose significant challenges to existing techniques (e.g., irregular sampling in hospital records and spatiotemporal structure in climate data). Finally, time series mining research is challenging and rewarding because it bridges a variety of disciplines and demands interdisciplinary solutions. Now is the time to discuss the next generation of temporal mining algorithms. The focus of our workshop is to synergize the research in this area and discuss both new and open problems in time series analysis and mining. The solutions to these problems may be algorithmic, theoretical, statistical, or systems-based in nature. Further, this workshop emphasizes applications to high-impact or relatively new domains, including but not limited to biology, health and medicine, climate and weather, road traffic, astronomy, and energy.

The MiLeTS workshop will discuss a broad variety of topics related to time series, including but not limited to:

- Time series forecasting and prediction using classical approaches
- Time series forecasting and prediction using LLMs
- Time series pattern mining and detection, representation, searching and indexing, classification, clustering, prediction, forecasting, and rule mining
- Time series that are multivariate, high-dimensional, heterogeneous, etc., or that possess other atypical propertie
- Time series with special structure: spatiotemporal (e.g., wind patterns at different locations), relational (e.g., patients with similar diseases), hierarchical, etc.
- Time series with sparse or irregular sampling, non-random missing values, and special types of measurement noise or bias
- Time series anomaly detection and diagnosis
- Interpretation and explanation in time series
- Causal inference in time series
- Bias and fairness in time series
- Federated learning in time series
- Hardware acceleration techniques using GPUs, FPGAs and special processors
- Online, high-speed learning and mining from streaming time series
- Uncertain time series mining
- Privacy preserving time series mining and learning
- New, open, or unsolved problems in time series analysis and mining
- Benchmarks, experimental evaluation, and comparison for time series analysis tasks
- Time series applications in various areas: E-commerce, Cloud computing, Transportation, Fintech, Healthcare, Internet of things, Wireless networks, Predictive maintenance, Energy, and Climate, etc.

Submission Guidelines

Submissions should follow the SIGKDD formatting requirements and will be evaluated using the SIGKDD Research Track evaluation criteria. Preference will be given to papers that are reproducible, and authors are encouraged to share their data and code publicly whenever possible. Submissions are limited to be no more than 9 pages (suggested 4-8 pages), including references (all in a single pdf). All submissions must be in pdf format using the KDD main conference paper template (see: https://kdd2024.kdd.org/research-track-call-for-papers/). Submissions will be managed via the EasyChair website:
https://easychair.org/conferences/?conf=milets2024

Note on open problem submissions: To promote new and innovative research on time series, we plan to accept a small number of high-quality manuscripts describing open problems in time series analysis and mining, including the use of Large Language Models (LLMs) and classical approaches. Such papers should provide a clear and detailed description and analysis of a new or existing problem that presents a significant challenge to current techniques, either

theoretically or through a thorough empirical investigation that demonstrates the insufficiency of current methods.

The review process is single-round and double-blind (submission files have to be anonymized). Concurrent submissions to other journals and conferences are acceptable. Accepted papers will be presented as posters during the workshop and listed on the website. Besides, a small number of accepted papers will be selected to be presented as contributed talks.

Any questions may be directed to the workshop e-mail address: kdd.milets@gmail.com

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Organizing Committee

Sanjay Purushotham (University of Maryland Baltimore County)
Qingsong Wen (Squirrel AI US)
Dongjin Song (University of Connecticut)
Luke Huan (AWS AI Labs)
Stefan Zohren (University of Oxford)
Cong Shen (University of Virginia)
Yuriy Nevmyvaka (Morgan Stanley)

Contact:

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