Monday, 17 March 2025 - Friday, 21 March 2025

Scientific Programme

研討會主題**:**

1. 人工智慧與量子計算在高能物理中的進展

探討機器學習、深度學習及量子演算法於粒子物理數據分析中的應用。

2. 分散式數據管理與大數據處理
高能物理實驗中，處理地理分散數據集的挑戰與解決方案。

3. 系統優化：效能分析與調整

分析系統效能並優化大規模實驗計算資源的策略。

4. 高效數據處理的工作負載調度

創新工作負載調度技術，應對大規模及動態計算任務的需求。

5. 科學研究中的虛擬合作

從 COVID-19 疫情期間的虛擬組織與合作管理中汲取的經驗教訓。

6. 處理大型數據集的計算模式演進

探討處理大規模、全球分佈數據集的計算模式的進展與洞察。

7. 邁向碳中和的永續計算
探索計算運作實現永續發展與減少碳足跡的趨勢與策略。

Topic of Interests:

Advancements in AI and Quantum Computing for High-Energy Physics

Exploring applications of machine learning, deep learning, and quantum algorithms in particle physics data analysis.

Distributed Data Management and Big Data Processing

Challenges and solutions for managing geographically distributed datasets in high-energy physics experiments.

System Optimization: Performance Analysis and Tuning

Strategies for analyzing system performance and optimizing computing resources for large-scale experiments.

Workload Scheduling for Efficient Data Processing

Innovations in workload scheduling to handle large-scale and dynamic computing tasks effectively.

Virtual Collaboration in Scientific Research

Lessons learned from managing virtual organizations and collaborations during the COVID-19 pandemic.

Evolving Computing Models for Large-Scale Datasets

Insights into computing model advancements for handling extensive and globally distributed datasets.

Sustainable Computing: Moving Towards Carbon Neutrality

Examining trends and strategies in computing operations to achieve sustainability and reduce carbon footprints.