

Efficient simulations on GPU hardware

Monday 24 October 2022

Contributed talks: Keynotes - HIT E 51 (13:20 - 16:00)

-Conveners: Zan Kokalj; Roman Gruber; Marina Krstic Marinkovic

time	[id] title	presenter
13:20	[24] Keynote 1: The Rise of Tightly-Coupled Processor Clusters	BENINI, Luca
14:00	[25] Keynote 2: Future Architectures for Computing and AI	MCCOLL, Bill
14:40	[26] Keynote 3: Scaling Machine Learning and Scientific Computing: A Data-Centric Perspective	BEN-NUN, Tal
15:20	[27] Keynote 4: To the Exascale, and Beyond: Computing Challenges in Lattice QCD	CLARK, Kate

Tuesday 25 October 2022

Contributed talks - HIT E 51 (09:30 - 11:30)

-Conveners: Piotr Korcyl; Mika Lauk

time	[id] title	presenter
09:30	[30] Talk 1: Machine Learning applications to lattice QCD	SHINDLER, Andrea
10:15	Coffee Break	
10:45	[31] Talk 2: Applications of normalizing flows as generative models for lattice field theory	KOMIJANI, Javad

Contributed talks - HIT E 51 (13:45 - 17:15)

-Conveners: Tim Harris; Anian Altherr

time	[id] title	presenter
13:45	[37] Talk 3: Machine learning hadron spectral functions in lattice qcd	DING, Heng-Tong
14:30	Coffee Break	
15:00	[32] Talk 4: Hierarchical autoregressive approach to two-dimensional statistical systems	KORCYL, Piotr
15:45	[33] Talk 5: Efficient simulations of ML and LQCD	BOYDA, Denis

Wednesday 26 October 2022

Contributed talks - HIT E 41.1 (09:30 - 11:30)

-Conveners: Gabriele Pierini; Javad Komijani

time	[id] title	presenter
09:30	[34] Talk 6: Real-time techniques and topological data analysis for non-perturbative phenomena in QFT	SPITZ, Daniel
10:15	Coffee Break	
10:45	[35] Talk 7: tmLQCD on GPUs: minimum effort approach to performance-portability	KOSTRZEWA, Bartosz

Contributed talks - HIT E 41.1 (13:45 - 16:30)

-Conveners: Bartosz Kostrzewa; Juan Antonio Fernandez de la Garza

time	[id] title	presenter
13:45	[36] Talk 8: ATLAS fast simulation 3 (Atlfast3) is a performance-focused variant of the full ATLAS simulation	DAY-HALL, Henry Ann
14:30	Coffee Break	
15:00	[18] Talk 9: One Code and Four APIs : performance portable software for lattice field theory	BOYLE, Peter
15:45	[19] Talk 10: Experience using MILC and QUDA on various GPU systems	GOTTLIEB, Steven

Thursday 27 October 2022

Contributed talks - HIT E 41.1 (09:30 - 11:30)

-Conveners: **Andrea Shindler; Thea Budde**

time	[id] title	presenter
09:30	[20] Talk 11: GPU port of openQCD using CUDA	ZIEGLER, Felix
10:15	Coffee Break	
10:45	[21] Talk 12: HILA lattice simulation framework - write once, run everywhere	RUMMUKAINEN, Kari

Contributed talks - HIT E 41.1 (13:30 - 16:30)

-Conveners: **Paola Tavella; Felix Ziegler**

time	[id] title	presenter
13:30	[47] Flash-Talk: Perspectives and challenges in studying the properties of strongly interacting matter in lattice qcd calculations	GOSWAMI, Jishnu
13:45	[45] Talk 13: Optimized Deep Learning Inference on High Level Trigger at the LHC: Computing time and Resource assessment	HASAN, Syed Anwar UI
14:30	Coffee Break	
15:00	[22] Talk 14: QUDA: Getting more QCD out of your GPU	WAGNER, Mathias
15:45	[23] Talk 15: Simulations of Lattice Quantum Chromodynamics on GPUs	JOO, Balint