Monday, 29 July 2024

Plenary (09:00 - 10:30)

-Conveners: Andreas Kronfeld

time	title	presenter
09:00	Opening	HANDS, Simon
09:05	Status and outlook of quark flavour physics	TSANG, J. Tobias
09:50	Recent highlights from the LHCb experiment	WHITEHEAD, Mark
10:20	Welcome	JONES, Tim

Break and walk to Guild of Students (10:30 - 11:15)

Algorithms and artificial intelligence: LT2 (11:15 - 12:55)

-Conveners: Scott Lawrence

time	title	presenter
11:15	Machine Learning Estimation on the trace of inverse Dirac operator using the Gradient Boosting Decision Tree Regression	CHOI, Benjamin J.
11:35	Applying the Triad network representation to four-dimensional ATRG method	SUGIMOTO, Yuto
11:55	Gauge symmetric transformer for lattice gauge theory	TOMIYA, Akio
12:15	Exploring Generative Networks for Manifolds with Non-Trivial Topology	CHEN, Shiyang
12:35	Improvement of Heatbath Algorithm in Lattice Field Theory using Generative AI	SINGHA, Ankur

Hadronic and nuclear spectrum and interactions: LT1 (11:15 - 13:15)

-Conveners: Christopher Thomas

time	title	presenter
11:15	Study of the pion-mass dependence of ρ -meson properties in lattice QCD	YU, Kang
11:35	Physical-mass calculation of $\rho(770)$ and $K^*(892)$ resonance parameters via $\pi \pi$ and $K \pi$ scattering amplitudes from lattice QCD	PITANGA LACHINI, Nelson
11:55	Implementing the relativistic-field-theory finite-volume formalism across all three-pion isospins	ALOTAIBI, Athari
12:15	Three-particle formalism for multiple channels: the ηππ + KKπ system in isosymmetric QCD	SHARPE, Stephen
12:35	Three-meson scattering amplitudes with physical quark masses	ROMERO-LOPEZ, Fernando
12:55	$\pi\pi\pi$ scattering	YAN, Haobo

QCD at non-zero temperature: TR5 (11:15 - 13:15)

-Conveners: Anders Tranberg

time	title	presenter
11:15	In- and out-of-equilibrium aspects of the Chiral Magnetic Effect	GARNACHO-VELASCO, Eduardo
11:35	Baryon electric charge correlation as a magnetometer of QCD	GU, Jin-Biao
11:55	Shear viscosity from quenched to full lattice QCD	PAVAN, Pavan
12:15	Thermal photon production rate from lattice QCD	BALA, Dibyendu

time	title	presenter
12:35	Adjoint chromoelectric correlators for heavy quarkonium diffusion	MAYER-STEUDTE, Julian
12:55	An update on the determination of the sphaleron rate in finite temperature QCD	D'ANGELO, Francesco

Quantum computing and quantum information: TR7 (11:15 - 13:15)

-Conveners: Zohreh Davoudi

time	title	presenter
11:15	Quantum Hamiltonian Truncation	INGOLDBY, James
11:35	Quantum Error Correction and Z(2) Lattice Gauge Theories	KIM, Seyong
11:55	Noise-aware mixed state quantum computation and its applications	CLEMENTE, Giuseppe
12:15	Gauge field digitization in the Hamiltonian limit	PESZNYÁK, Dávid
12:35	Euclidean Monte Carlo informed ground state preparation for quantum simulation	GUPTA, Navya
12:55	Quantum Many-Body Scars in 2+1D Gauge Theories	PINTO BARROS, Joao

Quark and lepton flavour physics: LT3 (11:15 - 13:15)

time	title	presenter
11:15	Status of the ETMC calculation of a_μ^{HVP} in isoQCD	GAROFALO, Marco
11:35	$\pi^0\to \gamma^\ast \gamma^\ast$ transition form factor and the pion pole contribution to a_{μ} on CLS ensembles	KOPONEN, Jonna
11:55	Status of the RBC/UKQCD HVP program	LEHNER, Christoph
12:15	Analysis of g-2 long distance two-pion correlators for the reconstruction of light vector correlators	MCKEON, Joe
12:35	Hadronic vacuum polarization contribution to the muon g-2 at short and long distances	KUBERSKI, Simon
12:55	Hadronic τ data and Lattice QCD+QED simulations for the muon $g-2$	BRUNO, Mattia

Structure of hadrons and nuclei: Flex2 (11:15 - 13:15)

-Conveners: Anthony Grebe

time	title	presenter
11:15	Nucleon axial, tensor, and scalar charges and σ-terms from lattice QCD	IONA, Christos
11:35	Flavor diagonal charges of the nucleon and the sigma term	GUPTA, Rajan
11:55	The isoscalar non-singlet axial form factor of the nucleon from lattice QCD	BARONE, Alessandro
12:15	How much strangeness is needed for the axial-vector form factor of the nucleon?	HERMSEN, Felix
12:35	Proton and neutron electromagnetic form factors using Nf=2+1+1 twisted-mass fermions with physical values of the quark masses	PRASAD, Bhavna
12:55	Nucleon electromagnetic form factors at large momentum from Lattice QCD	SYRITSYN, Sergey

Theoretical developments: TR4 (11:15 - 13:15)

-Conveners: Richard Brower

time	title	presenter
11:15	Effective mass-improvement of heavy valence Wilson quarks	FRITZSCH, Patrick

time	title	presenter
11:35	Exact space-time symmetry conservation and automatic mesh refinement for classical lattice field theory	ROTHKOPF, Alexander
11:55	The constraint potential for fermionic order parameters	MARKO, Gergely
12:15	The constraint potential in the chiral Gross-Neveu model	PANNULLO, Laurin
12:35	Symplectic quantization: a new deterministic approach to the dynamics of quantum fields inspired by statistical mechanics	GIACHELLO, Martina
12:55	Weyl Fermions on a Finite Lattice	SEN, Srimoyee

Vacuum structure and confinement: TR6 (11:15 - 13:15)

-Conveners: Biagio Lucini

time	title	presenter
11:15	The gluino condensate of large-N SUSY Yang–Mills	BONANNO, Claudio
11:35	Beyond Nambu-Goto corrections for the Effective String Theory of SU(N) lattice gauge theories	PANFALONE, Dario
11:55	SU(6) model revisited	YAMAOKA, Tatsuya
12:15	Test of a two-level algorithm for the glueball spectrum in $SU(N_c)$ Yang-Mills theory.	FALZETTI, Andrea
12:35	The imaginary-theta dependence of the SU(N) spectrum	VADACCHINO, Davide
12:55	Numerical evidence for a CP broken deconfined phase at $\theta =\pi$ in 4D SU(2) Yang-Mills through simulations at imaginary θ	HIRASAWA, Mitsuaki

Lunch (13:15 - 14:15)

Algorithms and artificial intelligence: LT2 (14:15 - 16:15)

-Conveners: Antonio Rago

time	title	presenter
14:15	Kernels and integration cycles in complex Langevin simulations	MANDL, Michael
14:35	Designing weight regularizations based on Lefschetz thimbles to stabilize complex Langevin	HOTZY, Paul
14:55	Diffusion models and stochastic quantisation in lattice field theory	AARTS, Gert
15:15	Diffusion models learn distributions generated by complex Langevin dynamics	HABIBI, Diaa Eddin
15:35	Sparse modeling study to extract spectral functions from lattice QCD data	TAKAHASHI, Junichi

Hadronic and nuclear spectrum and interactions: LT1 (14:15 - 16:15)

-Conveners: Gunnar Bali

time	title	presenter
14:15	Quark mass dependence of doubly heavy tetraquark binding	PARROTT, William
14:35	Strong decay of double charm tetra quark T_cc	BASAK, Subhasish
14:55	Towards quark mass dependence of Tcc	PRELOVSEK, Sasa
15:15	T_{cc} via plane wave approach and including diquark-antidiquark operators	VUJMILOVIĆ, Ivan
15:35	Three-body analysis of the tetraquark $T_{cc}^+(3875)$	DAWID, Sebastian
15:55	Lattice QCD study of Ξ_{cc}-Ξ_{cc} interactions on the physical point	DOI, Takumi

QCD at non-zero temperature: TR5 (14:15 - 16:15)

-Conveners: Johann Ostmeyer

time	title	presenter
14:15	Constraints on the Dirac spectrum from chiral symmetry restoration and the fate of $\mathrm{U}(1)_A$ symmetry	GIORDANO, Matteo
14:35	QCD topology, axions and electromagnetic fields	HERNÁNDEZ HERNÁNDEZ, José Javier
14:55	QCD Anderson transition with overlap valence quarks on a twisted-mass sea	KEHR, Robin
15:15	Localization of Dirac modes in the finite temperature SU(2)-Higgs model	BARANKA, György
15:35	Pseudoscalar Screening Mass at Finite Temperature and Magnetic Field	THAKKAR, Rishabh
15:55	Pseudo-scalar meson spectral properties from spatial hadron correlators	UEDING, Tristan

Quantum computing and quantum information: TR7 (14:15 - 16:15)

-Conveners: Bipasha Chakraborty

time	title	presenter
14:15	Quantum Simulation of Large N Lattice Gauge Theories	CIAVARELLA, Anthony
14:35	Duality and entanglement in lattice gauge theories	BULGARELLI, Andrea
14:55	Towards quantum simulation of lower-dimensional supersymmetric lattice models	MENDICELLI, Emanuele
15:15	Dynamics of the Sachdev-Ye-Kitaev model	ASADUZZAMAN, Muhammad
15:35	Determining entanglement measures in SU(N) lattice gauge theory for N>4: difficulties and solutions	RINDLISBACHER, Tobias
15:55	Symmetries of the Loop-string-hadron Framework: Towards Quantum Simulating Gauge Theories	RAYCHOWDHURY, Indrakshi

Quark and lepton flavour physics: LT3 (14:15 - 16:15)

-Conveners: Craig McNeile

time	title	presenter
14:15	Status report on the hadronic light-by-light contribution to the muon g-2 using twisted-mass fermions.	KALNTIS, Nikolaos
14:35	The hadronic light-by-light contribution to the muon $g{-}2$ using staggered fermions at the physical point	ZIMMERMANN, Christian
14:55	Lattice QCD calculation of pion pole's contribution to HLbL	LIN, Tian
15:15	Progress on the Hadronic vacuum polarization contribution to muon g-2 from lattice QCD	MONINGI, Vaishakhi
15:35	Structure-dependent electromagnetic finite-volume effects to the hadronic vacuum polarisation	HERMANSSON-TRUEDSSON, Nils
15:55	finite-volume effects on the LO-HVP contribution to the muon g-2	LUPO ON BEHALF OF THE BMW AND DMZ COLLABORATIONS, Alessandro

Structure of hadrons and nuclei: Flex2 (14:15 - 15:55)

-Conveners: Seyong Kim

time	title	presenter

14:15	A proposal for removing πN-state contamination from the nucleon induced pseudoscalar form factor in lattice QCD	SASAKI, Shoichi
14:35	$ \gamma^* N \rightarrow \pi N $ on Lattice	GAO, Yusheng
14:55	Update on pion scalar radii with $N_f=2+1$ Clover-improved Wilson fermions	OTTNAD, Konstantin
15:15	Calculation of meson charge radii using model-independent method in the PACS10 configuration	SATO, Kohei
15:35	Isovector axial and pseudoscalar form factors from twisted mass lattice QCD at the physical point	KOUTSOU, Giannis

Theoretical developments: TR4 (14:15 - 15:35)

-Conveners: Srimoyee Sen

time	title	presenter
14:15	Testing nucleation calculations for strong phase transitions	WEIR, David
14:35	Exact lattice chiral symmetry in 2d gauge theory	CHERMAN, Aleksey
14:55	Generalized BKT Transitions and Persistent Order on the Lattice	BERKOWITZ, Evan
15:15	Scaling results for charged sectors of near conformal QCD	D'ALISE, Alessandra

Vacuum structure and confinement: TR6 (14:15 - 15:55)

-Conveners: Orlando Oliveira

time	title	presenter
14:15	Absence of CP violation in the strong interaction	SCHIERHOLZ, Gerrit
14:35	Scale setting of $\mathrm{SU}(N)$ Yang--Mills theories via Twisted Gradient Flow	GIORGIERI, Andrea
14:55	The confined-deconfined surface tension in SU(N) gauge theories at large N	SALAMI, Ahmed
15:15	Fractional instantons and Confinement: a T2XR2 roadmap	GONZALEZ-ARROYO, Antonio
15:35	Fractional instantons and Confinement: first results for T^2xR^2	SOLER, Ivan

Break and walk to Yoko Ono Lennon Centre (16:15 - 17:00)

Plenary (17:00 - 18:30)

time	title	presenter
17:00	Machine-learning approaches to accelerating lattice simulations	LAWRENCE, Scott
17:30	Approaches to the Inverse Problem	JAY, William
18:00	The International Particle Physics Outreach Group (IPPOG) - Engaging the world with science	HATZIFOTIADOU, Despina

Tuesday, 30 July 2024

Plenary (09:00 - 10:30)

-Conveners: Hartmut Wittig

time	title	presenter
09:00	From scattering towards multi-hadron weak decays	ERBEN, Felix
09:45	Muon g-2	DAVIES, Christine

Break and walk to Guild of Students (10:30 - 11:15)

Hadronic and nuclear spectrum and interactions: LT1 (11:15 - 12:35)

-Conveners: Sara Collins

time	title	presenter
11:15	Predicting the spectrum and decay constants of positive-parity heavy-strange mesons using domain-wall fermions	GUYTON, Forrest
11:35	Static-light meson spectroscopy with optimal distillation profiles	STRUCKMEIER, Laura
11:55	Precision charmonium spectroscopy on CLS ensembles	BALI, Gunnar
12:15	Flavor mixing in charmonium and light mesons with optimal distillation profiles	URREA NINO, Juan Andres

Particle physics beyond the Standard Model: TR6 (11:15 - 12:35)

-Conveners: Davide Vadacchino

time	title	presenter
11:15	Electroweak correction to parity violating ep scattering	ZHANG, Zhaolong
11:35	Flavour singlet mixing in Sp(4) gauge theory with fermions in multiple representations	ZIERLER, Fabian
11:55	Supersymmetric QCD on the lattice: Fine-tuning and counterterms for the Yukawa and quartic couplings	HERODOTOU, Herodotos
12:15	Dilaton effective theory and soft theorems	ZWICKY, Roman

QCD at non-zero density: TR5 (11:15 - 12:35)

-Conveners: Jishnu Goswami

time	title	presenter
11:15	First-order phase transitions in the heavy quark region of lattice QCD at high temperatures and high densities	EJIRI, Shinji
11:35	Chiral and deconfinement properties of the QCD crossover have a different volume and baryochemical potential dependence	PIRELLI, Ludovica
11:55	The temperature of the chiral phase transition in LQCD at its tricritical point	KLINGER, Jan Philipp
12:15	Novel first-order phase transition and critical points on SU(3) Yang-Mills theory on $T^2\times R^2$	KITAZAWA, Masakiyo

QCD at non-zero temperature: LT2 (11:15 - 12:35)

-Conveners: Alexei Bazavov

time	title	presenter

11:15	Towards a parameter-free determination of critical exponents and chiral phase transition temperature in QCD	MITRA, Sabarnya
11:35	Three-flavour QCD phase transition with Mobius domain-wall fermions	ZHANG, Yu
11:55	Charm thermodynamics near chiral crossover	SHARMA, Sipaz
12:15	QCD thermodynamics on the physical point with 2+1 flavor Möbius domain wall fermions	AOKI, Yasumichi

Quantum computing and quantum information: TR7 (11:15 - 12:35)

-Conveners: Zohreh Davoudi

time	title	presenter
11:15	Handling challenges for robust and reliable quantum simulation of gauge theories on 1+1D and 2+1D	CHAKRABORTY, Bipasha
11:35	Simulating an SO(3) Quantum Link Model with Dynamical Fermions in 2+1 Dimensions	VAN GOFFRIER, Graham
11:55	Computing theta-dependent mass spectrum of the 2-flavor Schwinger model in the Hamiltonian formalism	MATSUMOTO, Akira
12:15	Phase Diagram of the Schwinger Model by Adiabatic Preparation of States on a Quantum Simulator	KAIKOV, Oleg

Quark and lepton flavour physics: LT3 (11:15 - 12:35)

-Conveners: Patrick Fritzsch

time	title	presenter
11:15	Virtual radiative Leptonic decays of charged Kaons	DI PALMA (ON BEHALF OF THE RM123 COLLABORATION), Roberto
11:35	Form factor curves consistent with unitarity for semileptonic decays	RADLEY-SCOTT, Callum
11:55	Gradient Flow Renormalisation for Meson Mixing and Lifetimes	BLACK, Matthew
12:15	$B^{*}\pi$ excited-state contamination in B-physics observables	GERARDIN, Antoine

Structure of hadrons and nuclei: Flex2 (11:15 - 12:35)

-Conveners: Dimitra Pefkou

time	title	presenter
11:15	Phase shift in doubly Charmed H-like dibaryon $\Lambda_c \Lambda_c$ scattering at $M_{\pi}\approx 303MeV$	GENG□□□, Yiqi□□□□
11:35	Three Neutrons in a Finite Volume	SCHAAF, Wilder
11:55	Investigation of πN contributions to nucleon matrix elements	LI, Yan
12:15	Lattice EFT test of the finite-volume formalism for two-body matrix elements	MOSCOSO, Joseph

Theoretical developments: TR4 (11:15 - 12:35)

-Conveners: Simon Catterall

time	title	presenter
11:15	Generalized Ginsparg-Wilson relations: Fermionic anomalies and topological phases on the lattice	SINGH, Hersh
11:35	η invariant of massive Wilson Dirac operator and the index	FUKAYA, Hidenori

| 11:55 | Axion QED as a Lattice Gauge Theory and Non-Invertible Symmetry | HONDA, Yamato |
| 12:15 | Discrete symmetry and 't Hooft anomalies for 3450 model | ONOGI, Tetsuya |

Lunch (12:35 - 13:45)

Algorithms and artificial intelligence: LT2 (13:45 - 15:45)

-Conveners: Akio Tomiya

time	title	presenter
13:45	Using Machine Learning based Unfolding to reduce error on lattice QCD observables	SINGH, Simran
14:05	Control variates with neural networks	OH, Hyunwoo
14:25	Parton Distribution Functions in the Schwinger Model with Tensor Networks	SCHNEIDER, Manuel
14:45	Toward tensor renormalization group study of lattice QCD	YOSPRAKOB, Atis
15:05	Initial tensor construction and dependence for tensor renormalization group	NAKAYAMA, Katsumasa
15:25	Machine Learning Enhanced Optimization of Variational Quantum Eigensolvers	NICOLI, Kim A.

Applications outside particle physics - parallel: TR6 (13:45 - 15:45)

-Conveners: Carsten Urbach

time	title	presenter
13:45	Lattice field theory of organic semiconductors	BUIVIDOVICH, Pavel
14:05	Overcoming Ergodicity Problems of the HMC Method using Radial Updates	TEMMEN, Finn
14:25	Hamiltonian Lattice Formulation of Compact Maxwell-Chern-Simons Theory	FUNCKE, Lena
14:45	Low-Lying Spectrum of Two-Dimensional Adjoint QCD from the Lattice	OARE, Patrick
15:05	Real time simulations of scalar fields with kernelled complex Langevin equation	SEXTY, Denes
15:25	Exploring Group Convolutional Networks for Sign Problem Mitigation via Contour Deformation	GÄNTGEN, Christoph

Hadronic and nuclear spectrum and interactions: LT1 (13:45 - 15:45)

-Conveners: Matthew Wingate

time	title	presenter
13:45	Beautiful exotics in a non-perturbatively tuned Lattice NRQCD setup	MOHLER, Daniel
14:05	Antistatic-antistatic-light-light tetraquark potentials with u, d and s quarks from lattice QCD	BICUDO, Pedro
14:25	Tetraquarks $\bar{b}\bar{b}ud$, $I(J^P)=0(1^-)$ and $\bar{b}\bar{c}ud$ with $I(J^P)=0(0^+), 0(1^+)$ from Lattice QCD Static Potentials	HOFFMANN, Jakob
14:45	Hybrid static potentials and gluelumps on $N_f=3+1$ ensembles	HÖLLWIESER, Roman
15:05	A scheme for studying the heavy pentaquark spectrum in lattice QCD	TARIQ, Abdullah Shams Bin
15:25	Exotic T_{bc} tetraquarks from Lattice QCD	RADHAKRISHNAN, Archana

Outreach Masterclass: TR1 (13:45 - 15:45)

time	title	presenter

| 13:45 | Particle Physics Masterclasses interactive demo | HATZIFOTIADOU, Despina SKULLERUD, Jon-Ivar |

QCD at non-zero density: TR5 (13:45 - 15:45)

-Conveners: Bastian Brandt

time	title	presenter
13:45	First-order phase transition in dynamical 3-flavor QCD at imaginary isospin	ENDRODI, Gergely
14:05	Progress on the QCD chiral phase transition for various numbers of flavors and imaginary chemical potential	KAISER, Reinhold
14:25	Dense, magnetized, and strangeness-neutral QCD from imaginary chemical potential	MARQUES VALOIS, Adeilton Dean
14:45	QCD EoS in strong magnetic fields and nonzero baryon density	KUMAR, Arpith
15:05	The Roberge-Weiss endpoint in (2+1)-flavor QCD with background magnetic fields	ZAMBELLO, Kevin
15:25	B dependence of the QED chiral condensate induced by an external magnetic field.	SINCLAIR, Donald

Quark and lepton flavour physics: LT3 (13:45 - 15:45)

-Conveners: Tetsuya Onogi

time	title	presenter
13:45	Lattice QCD calculation of the semileptonic decay $J/\psi\rightarrow D/D_s l \nu_l$	MENG, Yu
14:05	Form factors for semi-leptonic $B_{(s)} \to D_{(s)}^\square\ell \nu_\ell$ decays	BOUSHMELEV, Anastasia
14:25	$B\to D^{(*)}$ decays from $N_f=2+1+1$ highly improved staggered quarks and clover b-quark in the Fermilab interpretation.	BUTTI, Pietro
14:45	Towards more accurate $B_{(s)} \rightarrow \pi(K)$ and $D_{(s)} \rightarrow \pi(K)$ form factors	ROBERTS, Logan
15:05	Inclusive semileptonic $D_s\mapsto X \ell \nu$ decay from lattice QCD	DE SANTIS, Alessandro
15:25	Semileptonic Inclusive Decay of the D_s Meson	GROSS, Christiane

Software development and machines - parallel: TR7 (13:45 - 15:45)

-Conveners: Anthony Kennedy

time	title	presenter
13:45	Lattice QCD on the NVIDIA Grace-Hopper architecture	WAGNER, Mathias
14:05	Implementing automatic testing of Lattice QCD Software on Supercomputing Clusters	BÜRGER, Simon
14:25	O(a)-improved QCD+QED Wilson Dirac operator on GPUs	GRUBER, Roman
14:45	A Julia Code for Lattice QCD on GPUs	PÉREZ PANADERO, Fernando
15:05	Rearchitecting QUDA for Multi-RHS Computation	CLARK, Kate
15:25	openQCD on GPU	RAGO, Antonio

Structure of hadrons and nuclei: Flex2 (13:45 - 15:45)

-Conveners: Tie-Jiun Hou

time	title	presenter

time	title	presenter
13:45	Measurement of the TMD soft function on the lattice using the auxiliary field representation of the Wilson line	MORRIS, Wayne
14:05	Lattice Boer-Mulders TMDPDF with LaMET	MA, Lingquan
14:25	Nucleon TMDPDFs within the twisted mass fermion formulation of lattice QCD	SEN, Aniket
14:45	Forward-limit generalized parton distributions of the η_{c}-meson	MORGADO CHÁVEZ, Jose Manuel
15:05	Gluon Collins-Soper kernel from lattice QCD	FU, Yang
15:25	Refining Gluon Distributions in Nucleons via Lattice QCD	MAIO, Lorenzo

Theoretical developments: TR4 (13:45 - 15:25)

-Conveners: Hidenori Fukaya

time	title	presenter
13:45	The perturbative computation of the gradient flow coupling for the twisted Eguchi--Kawai model with the numerical stochastic perturbation theory	TAKEI, Hironori
14:05	Smoothing Properties of the Wilson Flow and Topological Charge	JAEGER, Benjamin
14:25	Energy-momentum tensor in the 2D Ising CFT in full modular space	MATSUMOTO, Nobuyuki
14:45	Lattice Field Theory On Curved Manifolds -- The Affine Conjecture	BROWER, Richard
15:05	Lattice study of RG fixed point based on gradient flow in $3D$ $O(N)$ sigma model	MORIKAWA, Okuto

Break (15:45 - 16:15)

Algorithms and artificial intelligence: LT2 (16:15 - 17:15)

-Conveners: Walter Wilcox

time	title	presenter
16:15	Effects of FTHMC with 2+1 Domain Wall Fermions on Autocorrelation Times via Master-Field Technique	YAMAMOTO, Shuhei
16:35	Minimal Autocorrelation in HMC simulations using Exact Fourier Acceleration	OSTMEYER, Johann
16:55	A new method for calculating false vacuum decay rates on the lattice	SWAIM, Joshua

Applications outside particle physics - parallel: TR6 (16:15 - 17:15)

-Conveners: Lena Funcke

time	title	presenter
16:15	Simulating the Hubbard Model with Normalizing Flows	SCHUH, Dominic
16:35	The Hubbard interaction at finite temperature on a Hexagonal lattice	RAZMADZE, Lado
16:55	Search for Stable States in Two-Body Excitations of the Hubbard Model on the Honeycomb Lattice	SINILKOV, Petar

Hadronic and nuclear spectrum and interactions: LT1 (16:15 - 17:15)

-Conveners: Christine Davies

time	title	presenter
16:15	The timelike pion form factor and other applications of $I=1$ $\pi\pi$ scattering	MILLER, Nolan
16:35	Timelike pseudoscalar form factors in a coupled channel from lattice QCD	ORTEGA GAMA, Felipe

| 16:55 | The 3-pion K-matrix at NLO in ChPT | SJÖ, Mattias |

Quantum computing and quantum information: Flex2 (16:15 - 17:15)

-Conveners: Emanuele Mendicelli

time	title	presenter
16:15	Simulating (1+1)d Abelian Gauge Theories with Cluster Algorithms	BUDDE, Thea
16:35	Quantum computational resources for lattice QCD in the strong-coupling limit	FROMM, Michael
16:55	Scattering wave packets of hadrons in gauge theories: Preparation on a quantum computer	HSIEH, Chung-Chun

Quark and lepton flavour physics: LT3 (16:15 - 17:15)

-Conveners: Antoine Gerardin

time	title	presenter
16:15	Bs -> mu+mu- gamma & Bs -> phi gamma decay rates from Nf=2+1+1 twisted mass simulations	SANFILIPPO, Francesco
16:35	Update of HPQCD $B_c\to J/\psi$ Form Factors	HARRISON, Judd
16:55	Heavy-light Meson Decay Constants and Hyperfine Splittings with the Heavy-HISQ Method	MILLER, Kerr

Software development and machines - parallel: TR7 (16:15 - 17:15)

-Conveners: Kate Clark

time	title	presenter
16:15	Autotuning multigrid parameters in the HMC on different architectures	KOSTRZEWA, Bartosz
16:35	Multigrid Multilevel Monte Carlo for Efficient Trace Estimation in Lattice QCD Simulations	JIMENEZ-MERCHAN, Jose
16:55	Deflation and polynomial preconditioning in the application of the overlap operator at nonzero chemical potential	RAMIREZ-HIDALGO, Gustavo

Standard Model parameters: TR5 (16:15 - 17:15)

-Conveners: Aida El-Khadra

time	title	presenter
16:15	Leptonic decays of charmed mesons with Wilson quarks on $N_{\rm f} = 2+1$ CLS ensembles	SOELDNER, Wolfgang
16:35	Form factor in semileptonic decay of D meson	SHEN, Tinghong
16:55	The Cabibbo Angle from Inclusive τ Decays	GAGLIARDI (ON BEHALF OF THE ETM COLLABORATION), Giuseppe

Theoretical developments: TR4 (16:15 - 17:15)

-Conveners: Evan Berkowitz

time	title	presenter
16:15	Tensor renormalization group study of (1+1)-dimensional O(3) nonlinear sigma model w/ and w/o finite chemical potential	KURAMASHI, Yoshinobu
16:35	Grassmann Tensor Renormalization Group for two-flavor massive Schwinger model with a theta term	KANNO, Hayato

16:55	Phase structure analysis of 2d CP(1) model with θ term by tensor network renormalization	AIZAWA, Hayato

Poster session and reception (17:15 - 19:15)

time	title	presenter
17:15	Taste-splittings of KW and BC fermions with gradient flow	DURR, Stephan
17:15	Lambda 1405 from lattice QCD	SUAREZ SUCUNZA, Javier
17:15	QUDA-Accelerated Batched Solvers for LQCD Workflows	WEINBERG, Evan
17:15	Towards direct access to the charmonium decay parameters	SAN JOSÉ PÉREZ, Miguel Teseo
17:15	Finite-temperature critical point of heavy-quark QCD on large lattices	KANAYA, Kazuyuki
17:15	Semiconductor quantum simulator for lattice gauge theories	VIKRAMADITYA, Vinay
17:15	Gravitational form factors of glueballs in Yang-Mills theory	PEFKOU, Dimitra
17:15	Towards determining the (2+1)-dimensional Quantum Electrodynamics running coupling with Monte Carlo and quantum computing methods	URBACH, Carsten
17:15	Web-Based UI Tools for the ILDG	PEDERIVA, Giovanni
17:15	The QED contributions to the short and intermediate windows of the hadronic vacuum polarization contribution to the muon g−2	MCNEILE, Craig
17:15	Porting Lattice QCD benchmark to upcoming STX stencil/tensor accelerator	SCHLEPPHORST, Simon
17:15	Smeared R-ratio in isoQCD with Low Mode Averaging	MARGARI, Francesca
17:15	B-meson semileptonic decay form factors from highly improved staggered quarks	EL-KHADRA, Aida JAY, William
17:15	Towards a discretization of supersymmetric QCD	CARSTENSEN, Enno
17:15	Variational Quantum Algorithms for Non-Hermitian Systems	MCNEILE, Craig
17:15	Extracting the distribution amplitude of light pseudoscalar mesons using the HOPE method	PERRY, Robert
17:15	Status of the ETMC ensemble generation effort	KOSTRZEWA, Bartosz
17:15	Progress on the GPU porting of HiRep	MARTINS, Sofie
17:15	The spectrum of open confining strings in the large-N limit	SHARIFIAN, Alireza
17:15	Model Averaging Tool for Parameter Estimation in LFT	RODEKAMP, Marcel
17:15	Spectrum of preconditioned Moebius domain-wall operators	KANAMORI, Issaku
17:15	Towards the Analysis of Exotic Hadrons with 6-Stout Smeared Ensembles and Distillation	BRADLEY, Grant
17:15	2024 Update on ϵ_{K} with lattice QCD inputs	JWA, Seungyeob
17:15	Using Machine Learning for Noise Resilient Optimization of Variational Quantum Eigensolvers	WAGNER, Luca Johannes
17:15	Equivariant Normalizing Flows for the Hubbard Model	KREIT, Janik
17:15	Strangeness-neutral line in dense and magnetized QCD at imaginary chemical potential	PETRI, Marc-André
17:15	Portable Lattice QCD implementation based on OpenCL	KUMAR, Piyush
17:15	Proton decay matrix elements on PACS configurations	TSUJI, Ryutaro
17:15	Higgs Portal to Dark Vector Physics	MAHMOOD, Natasha

18:15	BBGKY hierarchy for quantum error mitigation	SAPORITI, Theo
18:15	Scaling of Normalizing Flows for Lattice Gauge Theories: Automated Hyperparameter Optimization and Transfer Learning	KIRWAN, Christopher
18:15	Towards the application of random matrix theory to neural networks	FAVONI, Matteo
18:15	Exploring gauge-fixing conditions with gradient-based optimization	KANWAR, Gurtej
18:15	Fourier-accelerated HMC for the 2D SU(N) X SU(N) principal chiral model	PENDLETON, Brian
18:15	Topological susceptibility of SU(3) pure-gauge theory from out-of-equilibrium simulations	VADACCHINO, Davide
18:15	Variational Autoencoders and Metropolis-Hastings	HADLEY, Joseph
18:15	Using AI for Efficient Statistical Inference of Lattice Correlators Across Mass Parameters	VEGA, Octavio
18:15	Resolving the critical bubble in SU(8) confinement transition	SEPPÄ, Riikka
18:15	Energy-momentum tensor in the 2d O(3) non-linear sigma model on the lattice	LAUK, Mika
18:15	Topology in 2D $U(N_c)$ lattice gauge theories	ROUENHOFF, Philip
18:15	Observing black hole features in the collapsed phase of EDT	SMIT, Jan
18:15	Matching Curved Lattices to Anisotropic Tangent Planes	FLEMING, George
18:15	Numerical study of the dimensionally reduced 3D Ising model	KIEL, Tolga
18:15	HMC and gradient flow with machine-learned classically perfect fixed point actions	WENGER, Urs
18:15	Update on the octet baryon charges with $N_f=2+1$ non-perturbatively improved Wilson fermions	WEISHÄUPL, Simon
18:15	High statistical computation of the Landau gauge ghost-gluon vertex	BRITO, Nuno
18:15	Online or in-person?	CHAKRABORTY, Bipasha
18:15	Partially connected contributions to baryon masses in QCD+QED	ROSSO, Sara
18:15	Update on semileptonic B-decays with HISQ light quarks and clover b-quarks in Fermilab interpretation	JEONG, Hwancheol
18:15	Support of domain decomposition-based solvers in Chroma	ROMERO ALCALDE, Eloy
18:15	Domain Decomposition of the Dirac operator in QUDA	PITTLER, Ferenc
18:15	Preliminary results for the intermediate-distance window contribution from the BMW collaboration	TOTH, Balint
18:15	Computing scattering phase shift of wavepackets in Gross-Neveu model	ASADUZZAMAN, Muhammad
18:15	Towards the gradient flow beta function of SU(2) with $N_f=1$ and 2 adjoint Dirac fermions	BENNETT, Ed
18:15	Opening up a Coulomb Phase in Z_3 Gauge Theory	LANNERS, David
18:15	Progress in generating gauge ensembles in OpenLat	FRANCIS, Anthony
18:15	One-loop Analysis for QCD Schrodinger functional	LEUNG, ChunFei
18:15	Maximally supersymmetric Yang--Mills in three dimensions	SCHAICH, David

Wednesday, 31 July 2024

Plenary (09:00 - 10:30)

-Conveners: Anna Hasenfratz

time	title	presenter
09:00	Qubit Regularization: Asymptotic Freedom via New Renormalization Group flows	CHANDRASEKHARAN, Shailesh
09:30	Lattice fermions, topological materials and Floquet insulators	SEN, Srimoyee
10:00	Symmetric Mass Generation	TONG, David

Break and walk to Guild of Students (10:30 - 11:15)

Algorithms and artificial intelligence: LT2 (11:15 - 12:55)

-Conveners: Gurtej Kanwar

time	title	presenter
11:15	Random Matrix Theory for Stochastic Gradient Descent	PARK, Chanju
11:35	Progress in normalizing flows for 4d gauge theories	ABBOTT, Ryan
11:55	Stochastic Normalizing Flows for Effective String Theory.	CELLINI, Elia
12:15	Sampling SU(3) pure gauge theory with Stochastic Normalizing Flows	NADA, Alessandro
12:35	Normalizing flows for SU(n) gauge theories employing singular value decomposition	JAVAD, Komijani

Hadronic and nuclear spectrum and interactions: LT1 (11:15 - 12:55)

-Conveners: Jeremy Green

time	title	presenter
11:15	Quark-mass dependence of the $\Delta(1232)$ resonance parameters.	PAUL, Srijit
11:35	Studying lattice artifacts in baryon-baryon variational bounds	PERRY, Robert
11:55	Lattice QCD study on Λ_c-N central and tensor potentials with physical masses	ZHANG, Liang
12:15	NJ/ψ and $N\eta_c$ interactions from lattice QCD	LYU, YAN
12:35	Lattice Calculation of Proton-Proton Fusion Matrix Element	WANG, Zi-Yu

Particle physics beyond the Standard Model: TR6 (11:15 - 12:35)

-Conveners: Herodotos Herodotou

time	title	presenter
11:15	On the spectrum of observable particles in BSM-like theories	DOBSON, Elizabeth
11:35	Spectroscopy of lattice gauge theories from spectral densities	FORZANO, Niccolo
11:55	Spectral densities from Euclidean-time lattice correlation functions	SACCARDI, Matteo
12:15	Updates on the density of states method in finite temperature Symplectic gauge theories	MASON, David

QCD at non-zero density: TR5 (11:15 - 12:35)

-Conveners: Etsuko Itou

time	title	presenter
11:15	Resummation methods for effective theories of LQCD	KONRAD, Christoph
11:35	Grassmann tensor-network approach for two-dimensional QCD in the strong-coupling expansion	SAMBERGER, Thomas
11:55	Complex Langevin simulations of QCD: the effects of dynamical stabilization	WESTH HANSEN, Michael
12:15	The chiral critical point from the strong coupling expansion	UNGER, Wolfgang

QCD at non-zero temperature: Flex2 (11:15 - 12:55)

-Conveners: Yasumichi Aoki

time	title	presenter
11:15	NRQCD Bottomonium spectrum at non-zero temperatures using Backus-Gilbert regularisations	SMECCA, Antonio
11:35	NRQCD Bottomonium at non-zero temperature using time-derivative moments	HOROHAN D'ARCY, Rachel
11:55	Anisotropic excited bottomonia from a basis of smeared operators	BIGNELL, Ryan
12:15	Nonrelativistic QCD Study of Bottomonia at Finite Temperatures on a Finer Lattice	HUANG, Wei-Ping
12:35	Quarkonia Spectral Functions from (2+1)-flavor QCD using Non-perturbative Thermal Potential	ALI, Sajid

Quark and lepton flavour physics: LT3 (11:15 - 12:55)

-Conveners: Jonna Koponen

time	title	presenter
11:15	Divide and conquer the sea of quarks: an application to the HVP short-distance window	SPIEGEL, Sebastian
11:35	Machine-learning techniques as noise reduction strategies in lattice calculations of the muon $g-2$	WITTIG, Hartmut
11:55	Preliminary results for the short-distance window contribution to the muon g-2	KOTOV, Andrey
12:15	Short- and intermediate-distance HVP contributions to muon g-2	LAHERT, Shaun
12:35	Light-quark connected HVP contributions to muon g-2	LYNCH, Michael

Theoretical developments: TR4 (11:15 - 12:55)

-Conveners: Stephan Durr

time	title	presenter
11:15	SymEFT for local tastes of staggered lattice QCD	HUSUNG, Nikolai
11:35	Locality and symmetry properties of staggered fermions with taste splitting mass term	CHREIM, Nuha
11:55	Chiral Lagrangian for Karsten-Wilczek Minimally Doubled Fermion	SHUKRE, Kunal
12:15	Eigenspectra of Minimally Doubled Fermions	KISHORE, Abhijeet
12:35	Formulation of SU(N) Lattice Gauge Theories with Schwinger Fermions	LIU, Hanqing

Vacuum structure and confinement: TR7 (11:15 - 12:55)

-Conveners: David Weir

time	title	presenter

11:15	Investigating the Flux Tube Structure within Full QCD	COSMAI, Leonardo
11:35	Towards an Effective String Theory for the flux-tube	ATHENODOROU, Andreas
11:55	Intrinsic width of the flux tube in 2+1 dimensional Yang-Mills theories	VERZICHELLI, Lorenzo
12:15	Entanglement entropy of a color flux tube in 2 + 1-D Yang-Mills theory	AMOROSSO, Rocco
12:35	Effective string description of the reconfined phase in the trace deformed SU(2) Yang-Mills theory in (2+1) dimensions.	CASELLE, Michele

Box lunch pickup (12:55 - 13:30)

Excursions (13:30 - 17:45)

Thursday, 1 August 2024

Algorithms and artificial intelligence: LT2 (09:00 - 11:00)

-Conveners: Gert Aarts

time	title	presenter
09:00	Hessian-free force-gradient integrators and their application to lattice QCD simulations	SCHÄFERS, Kevin
09:20	Parallel Tempered Metadynamics	EICHHORN, Timo
09:40	Accelerating Metadynamics to overcome action barriers in 4D-SU(3) gauge theory with an eye on full QCD	FUWA, Gianluca
10:00	Automated tuning for HMC mass ratios	OSBORN, James
10:20	Multilevel algorithm for glueball calculations	BARCA, Lorenzo
10:40	Improving HISQ quark solves using deflation	HOSTETLER, Leon

Hadronic and nuclear spectrum and interactions: LT1 (09:00 - 11:00)

-Conveners: Sinya Aoki

time	title	presenter
09:00	Scalar and tensor charmonium resonances in coupled-channel scattering	WILSON, David
09:20	Extraction of the S and P wave DD* scattering phase shifts using twisted boundary conditions	NAGATSUKA, Masato
09:40	$DK/D\pi$ scattering and an exotic virtual bound state at the SU(3) flavour symmetric point	YEO, Daniel
10:00	Near-threshold states in coupled $DD^{\ast}-D^{\ast}D^{\ast}$ scattering from lattice QCD	WHYTE, Travis
10:20	Open-charm axial-vector and tensor meson resonances from Lattice QCD	LANG, Nicolas
10:40	$X(3872)$ relevant $D\bar{D}^{\ast}$ scattering in $N_f=2$ lattice QCD	SHI, Chunjiang

Hadronic and nuclear spectrum and interactions: TR5 (09:00 - 11:00)

-Conveners: Felix Erben

time	title	presenter
09:00	Relativistic corrections to the quark-anti-quark static potential with gradient flow	EICHBERG, Michael
09:20	1^{-+} Light Hybrid Decay	CHEN, Siyang
09:40	Towards glueball scattering in lattice Yang-Mills theory	HANSEN, Maxwell
10:00	Scattering of Dark Pions in Sp(4) gauge theory	DENGLER, Yannick
10:20	Results on meson-meson scattering at large N_c	BAEZA-BALLESTEROS, Jorge
10:40	Precise decay rate for $\eta_b\to\gamma\gamma$ with Highly Improved Staggered Quarks	COLQUHOUN, Brian

QCD at non-zero density: TR4 (09:00 - 11:00)

-Conveners: Gergely Endrodi

time	title	presenter
09:00	Equation of state of isospin asymmetric QCD with small baryon chemical potentials	BRANDT, Bastian

09:20	Phase and equation of state of finite density QC$_2$D at lower temperature	ITOU, Etsuko
09:40	Dense QC2D: What's up with that?!?	LAWLOR, Dale
10:00	QCD constraints on isospin-dense matter and the nuclear equation of state	DETMOLD, William
10:20	Pion condensation at non-zero isospin chemical potential with Wilson fermions	BASTA, Rocco Francesco
10:40	Condensation of lighter-than-physical pions in QCD	CHELNOKOV, Volodymyr

Quark and lepton flavour physics: LT3 (09:00 - 11:00)

-Conveners: Simon Kuberski

time	title	presenter
09:00	Disconnected contribution to the muon $g-2$ hadronic vacuum polarization	CLARKE, David Anthony
09:20	Strong isospin breaking correction to hadronic vacuum polarization for the muon $g-2$	SITISON, Jake
09:40	UV-finite QED correction to the hadronic vacuum polarization contribution to $(g-2)_\mu$	PARRINO, Julian
10:00	The isospin-violating part of the hadronic vacuum polarisation	ERB, Dominik
10:20	Valence leading isospin breaking contributions to $a_{\mu}^{\mathrm{HVP-LO}}$	EVANGELISTA, Antonio
10:40	Checks on QED and strong-isospin breaking corrections to the HVP contribution in the standard model prediction of the muon g-2	RISCH, Andreas

Standard Model parameters: TR6 (09:00 - 11:00)

-Conveners: Chik Him Wong

time	title	presenter
09:00	Quark mass determination using various fermion actions	YANG, Yi-Boo
09:20	Gradient Flow for Quark Mass Determination	TAKAURA, Hiromasa
09:40	The hadronic contribution to the running of α and the electroweak mixing angle	CONIGLI, Alessandro
10:00	$\mathrm{O}(a)$ improvement of the flavour singlet scalar density in a setup with Wilson fermions	PETRAK, Pia Leonie Jones
10:20	Non-singlet axial current improvement for massless and massive sea quarks	KUHLMANN, Justus T.

Structure of hadrons and nuclei: Flex2 (09:00 - 10:40)

-Conveners: Xu Feng

time	title	presenter
09:00	Unlocking Higher Moments of Parton Distribution Functions in Lattice QCD	ANDREA, Shindler
09:20	Higher moments of the pion parton distribution functions using gradient flow	PEFKOU, Dimitra
09:40	LCDA moments of meson	WANG, Ji-Hao
10:00	Quark and gluon momentum fractions in the pion and in the kaon	RODRIGUEZ CHACON, Luis Alberto
10:20	Transverse Force Distributions in the Proton from Lattice QCD	CRAWFORD, Joshua

Tests of fundamental symmetries: TR7 (09:00 - 11:00)

-Conveners: Thomas Blum

time	title	presenter
09:00	Update on the lattice calculation of K->pipi decays with G-parity boundary conditions on a second lattice spacing	KELLY, Christopher
09:20	Gradient Flow of the Weinberg Operator	BHATTACHARYA, Tanmoy
09:40	Unitarity triangles and the lattice	SONI, Amarjit
10:00	Study of symmetry of $N_f=2$ QCD near the critical temperature using Mobius Domain Wall Fermions	WARD, David
10:20	Lattice techniques to investigate the strong CP problem: lessons from a toy model	ALBANDEA, David
10:40	Subtleties and systematics in obtaining a sub-percent determination of gA	WALKER-LOUD, Andre

Break (11:00 - 11:30)

Algorithms and artificial intelligence: LT2 (11:30 - 12:30)

 -Conveners: Andreas Athenodorou

time	title	presenter
11:30	Studies of Gauge-fixed Fourier acceleration for SU(3) gauge theory	CHRIST, Norman
11:50	Chiral rank-k truncations for the multigrid preconditioner of Wilson fermions	WHYTE, Travis
12:10	Digitised Hamiltonian SU(2) Gauge Theories at Weak Couplings	JAKOBS, Timo

Hadronic and nuclear spectrum and interactions: LT1 (11:30 - 12:30)

 -Conveners: William Detmold

time	title	presenter
11:30	Left-hand cut and the HAL QCD method	AOKI, Sinya
11:50	The Lüscher scattering formalism on the left-hand cut: an update	RAPOSO, Andre
12:10	The finite-volume spectrum in the presence of a long-range force	RUSETSKY, Akaki

Hadronic and nuclear spectrum and interactions: TR5 (11:30 - 12:30)

 -Conveners: Fernando Romero-Lopez

time	title	presenter
11:30	Lattice calculaiton of hadron spectrum including isospin breaking effect	LU, Chenfei
11:50	Error Scaling of Sea Quark Isospin-Breaking Effects	COTELLUCCI, Alessandro
12:10	Update on the isospin breaking corrections to the HVP with C-periodic boundary conditions	PARATO, Letizia

Quark and lepton flavour physics: LT3 (11:30 - 12:30)

 -Conveners: Oliver Witzel

time	title	presenter
11:30	Study on the P-wave form factors of the B_s to D_s semi-leptonic decays from inclusive lattice simulations	HU, Zhi
11:50	Spectator effects in inclusive lifetimes of heavy hadrons	LIN, Joshua
12:10	Systematic effects in the lattice calculation of inclusive semileptonic decays	KELLERMANN, Ryan

Standard Model parameters: TR6 (11:30 - 12:30)

-Conveners: Amarjit Soni

time	title	presenter
11:30	RG running from step-scaling matrices in □SF schemes for Δ□ = 2 Four-Fermion Operators	MARINELLI, Riccardo
11:50	RIMOM renormalization using domain wall and staggered fermions	CAI, Mengchu
12:10	Strong coupling constant in (2+1+1)-flavor QCD	LEINO, Viljami

Structure of hadrons and nuclei: Flex2 (11:30 - 12:30)

-Conveners: Giannis Koutsou

time	title	presenter
11:30	Neutral pion polarizabilities from four-point functions	LEE, Frank
11:50	Charged kaon electric polarizability from lattice four-point functions	NADEEM, Shayan
12:10	Applications of nucleon four-point correlation functions	FENG, Xu

Theoretical developments: TR4 (11:30 - 12:30)

-Conveners: Aleksey Cherman

time	title	presenter
11:30	Scattering Amplitudes from Euclidean Correlators	PATELLA, Agostino
11:50	Numerical simulation of fractional topological charge in SU(N) gauge theory coupled with $\mathbb{Z}_N$ 2-form gauge fields	ABE, Motokazu
12:10	U(1)-gauged 2-flavor spin system in 3-D	GATTRINGER, Christof

Lunch and walk to Yoko Ono Lennon Centre (12:30 - 14:00)

Plenary (14:00 - 15:05)

-Conveners: Swagato Mukherjee

time	title	presenter
14:00	Ken Wilson Award	
14:35	Real time simulations on the lattice: quantum, classical, and in between	TRANBERG, Anders

Conference photo and break (15:05 - 15:45)

Plenary (15:45 - 16:30)

-Conveners: Chris Michael

time	title	presenter
15:45	50 years of lattice QCD	SMIT, Jan KOGUT, John
	- Lattice Gauge Theory before Lattice Gauge Theory	KOGUT, John
	- A confederacy of anomalies	SMIT, Jan

Banquet (16:30 - 19:30)

Friday, 2 August 2024

Plenary (09:00 - 10:30)

-Conveners: Jana N. Guenther

time	title	presenter
09:00	Selected topics on the QCD phase diagram at finite temperature and density	SCHMIDT, Christian
09:45	Panel discussion on open data and reproducibility	ATHENODOROU, Andreas HASENFRATZ, Anna URBACH, Carsten BENNETT, Ed CHISHOLM, Louise

Break and walk to Guild of Students (10:30 - 11:15)

Algorithms and artificial intelligence: LT2 (11:15 - 12:55)

-Conveners: Lorenz von Smekal

time	title	presenter
11:15	Nested Sampling for U(1) in 2+1 dimensions	ROMITI, Simone
11:35	Unfreezing topology with nested sampling	WENGER, Urs
11:55	Studying the SU(3) confinement transition with nested sampling	KANWAR, Gurtej
12:15	Density of observables from local derivatives	LARSEN, Rasmus
12:35	Real-time dynamics from convex geometry	LAWRENCE, Scott

Hadronic and nuclear spectrum and interactions: LT1 (11:15 - 13:15)

-Conveners: Colin Morningstar

time	title	presenter
11:15	Exploring Single-Flavor Dibaryons: A lattice perspective	DHINDSA, Navdeep Singh
11:35	Universality of the continuum limit for the H dibaryon	GREEN, Jeremy
11:55	Connecting Lattice QCD Nucleon-Pion Scattering to Nuclear Ab Initio Calculations	MEYER, Aaron
12:15	Spectral analysis for nucleon-pion and nucleon-pion-pion states in both parity sectors using distillation with domain wall fermions	HACKL, Andreas
12:35	Pole trajectories of the Λ(1380) and Λ(1405) resonances from the combination of lattice and experimental data	PITTLER, Ferenc
12:55	Lambda(1405) in the flavor SU(3) limit using a separable potential in the HAL QCD method	MURAKAMI, Kotaro

Lattice Data session: TR3 (11:15 - 13:15)

Particle physics beyond the Standard Model: TR6 (11:15 - 13:15)

-Conveners: Georg Bergner

time	title	presenter
11:15	Progress on the spectroscopy study of the composite Higgs model with Sp(4) gauge theory and multiple fermion representations	HSIAO, Ho

11:35	Progress in lattice simulations for two Higgs doublet models	CATUMBA, Guilherme
11:55	Lattice vs perturbation theory : Testing the Abelian-Higgs model at three loops	EKSTEDT, Andreas
12:15	Progress on holographic vacuum misalignment	FATEMIABHARI, Ali
12:35	Dilaton Forbidden Dark Matter	INGOLDBY, James
12:55	Finite temperature transition in Hyper Stealth Dark Matter using Mobius Domain Wall fermions	PARK, Sungwoo

QCD at non-zero density: TR5 (11:15 - 13:15)

-Conveners: Shinji Ejiri

time	title	presenter
11:15	Quark number susceptibility and conserved charge fluctuation for (2+1)-flavor QCD with Möbius domain wall fermions	GOSWAMI, Jishnu
11:35	Continuum extrapolated high order baryon fluctuations	GUENTHER, Jana N.
11:55	Taylor series coefficients at $\mu=0$ from imaginary μ computations	ALIBERTI, Marco
12:15	Finite-size scaling of Lee-Yang zeros and its application to 3-state Potts model and heavy-quark QCD	WADA, Tatsuya
12:35	Search for a Lee-Yang edge singularity in high-statistics Wuppertal-Budapest data	ADAM, Alexander
12:55	On analytic continuation from imaginary to real chemical potential in Lattice QCD	DI RENZO, Francesco

Quark and lepton flavour physics: LT3 (11:15 - 13:15)

-Conveners: Tanmoy Bhattacharya

time	title	presenter
11:15	Update of kaon semileptonic form factor using $N_f=2+1$ PACS10 configurations	YAMAZAKI, Takeshi
11:35	Split-even approach to the rare kaon decay $K \to \pi \ell^+ \ell^-$	HODGSON, Raoul
11:55	Two photon contribution to the K->mumu decay amplitude on a $1/a\approx$ 1 GeV lattice	CHAO, En-Hung
12:15	Contribution of the eta to a lattice calculation of K->mumu decay	HU, Ceran
12:35	$\Delta I = 1/2$ process of $K\to\pi\pi$ decay on multiple ensembles with periodic boundary conditions	TOMII, Masaaki
12:55	Enhanced Lattice QCD Studies on ϵ_{K} and ΔM_{K}	HUO, Yikai

Structure of hadrons and nuclei: Flex2 (11:15 - 13:15)

-Conveners: Roger Horsley

time	title	presenter
11:15	Axialvector diquark Mass and quark-diquark potential in Sigma_c	NISHIOKA, Soya
11:35	Gauge dependence of ccbar potential from Nambu-Bethe-Salpeter wave function in Lattice QCD	ZHANG, Tianchen
11:55	Long-range interactions in double heavy tetraquarks $\bar Q \bar Q q q$	ANWAR, Muhammad Naeem
12:15	Gluon nonlocal operator mixing in lattice QCD	GAVRIEL, Demetrianos
12:35	Lanczos for matrix elements	HACKETT, Daniel

| 12:55 | Exploring Nuclear Beta Decay Through Nuclear Lattice Effective Field Theory | WANG, Teng |

Theoretical developments: TR4 (11:15 - 13:15)

-Conveners: David Tong

time	title	presenter
11:15	Novel Lattice Formulation of 2D Chiral Gauge Theory via Bosonization	ONODA, Soma
11:35	Lattice Weyl Fermion on a single spherical domain-wall 1	AOKI, Shoto
11:55	Lattice Weyl Fermion on a single spherical domain-wall 2	KAN, Naoto
12:15	Loop-string-hadron approach to the SU(3) gauge invariant Hilbert space	STRYKER, Jesse
12:35	Quantum thermodynamics, lattice gauge theories, and quantum simulation	DAVOUDI, Zohreh

Vacuum structure and confinement: TR7 (11:15 - 12:55)

-Conveners: Tamas G. Kovacs

time	title	presenter
11:15	Observations on spontaneous chiral symmetry breaking and mass gap of QCD in finite volume	MENG, Xiaolan
11:35	The four gluon vertex from lattice QCD	OLIVEIRA, Orlando
11:55	An introduction to topological data analysis for lattice field theory	GIANSIRACUSA, Jeffrey
12:15	Topological Data Analysis of Monopole Currents in U(1) Lattice Gauge Theory	CREAN, Xavier
12:35	Topological Data Analysis, Monopoles and Colour Confinement in SU(3) Yang-Mills	LUCINI, Biagio

Lunch (13:15 - 14:15)

Algorithms and artificial intelligence: LT2 (14:15 - 15:55)

-Conveners: James Osborn

time	title	presenter
14:15	Generalized HMC using Nambu mechanics	LUNDSTRUM, Erik
14:35	Tuning the Riemannian Manifold Hybrid Monte Carlo with Fermions	FIELDS, Sarah
14:55	On the geometric convergence of HMC on Riemannian manifolds	YU, Xinhao
15:15	Worldvolume Hybrid Monte Carlo algorithm for group manifolds	FUKUMA, Masafumi
15:35	Applying the Worldvolume Hybrid Monte Carlo method to the (1+2)-dim Hubbard model	NAMEKAWA, Yusuke

Hadronic and nuclear spectrum and interactions: LT1 (14:15 - 16:15)

-Conveners: David Wilson

time	title	presenter
14:15	Learning Hadron Interactions from Lattice QCD	WANG, Lingxiao
14:35	Generalized boost transformations in finite volumes and application to Hamiltonian methods	WU, Jia-jun
14:55	Distillation and position-space sampling for local multiquark interpolators	STUMP, Andres
15:15	Progress in Reconstructing the Hadronic Tensor from Euclidean Correlators	STEWART, Douglas

15:35	Reconstruction of the vector meson propagator using a generalized eigenvalue problem	FRECH, Fabian Justus
15:55	Updates on anisotropic pure gauge ensembles with HISQ	TRIMIS, Ioannis

Particle physics beyond the Standard Model: TR6 (14:15 - 15:55)

-Conveners: Roman Zwicky

time	title	presenter
14:15	The mass of the σ in a chiral ensemble in $SU(2)$ with two fundamental flavours	BOWES, Laurence Sebastian
14:35	Determination of the pseudoscalar decay constant from SU(2) with two fundamental flavors	MARTINS, Sofie
14:55	Symmetric mass generation for staggered fermions	CATTERALL, Simon
15:15	Renormalization group studies of the 8-flavor SU(3) system	HASENFRATZ, Anna
15:35	Investigating SU(3) with Nf=8 fundamental fermions at strong renormalized coupling	WITZEL, Oliver

QCD at non-zero temperature: TR5 (14:15 - 15:55)

-Conveners: Masakiyo Kitazawa

time	title	presenter
14:15	Computation of the latent heat of the deconfinement phase transition of SU(3) Yang-Mills theory	VIRZÌ, Luca
14:35	Non-perturbative thermal QCD at very high temperatures	GIUSTI, Leonardo
14:55	The Equation of State of QCD up to the Electro-Weak scale - part 1	PEPE, Michele
15:15	The Equation of State of QCD up to the Electro-Weak scale - part 2	BRESCIANI, Matteo
15:35	Baryonic screening masses at very high temperatures	LAUDICINA, Davide

Quark and lepton flavour physics: LT3 (14:15 - 16:15)

-Conveners: Elvira Gamiz

time	title	presenter
14:15	Lattice QCD Calculation of Electroweak Box Contributions to Superallowed Nuclear and Neutron Beta Decays	MA, Peng-Xiang
14:35	Four-quark operators with ΔF = 2 in the GIRS scheme	KOSTA, Marios
14:55	Bringing near-physical QCD+QED calculations beyond the electro-quenched approximation	HILL, Ryan
15:15	Finite-volume formalism for physical processes with an electroweak loop integral	TUO, Xinyu
15:35	On-shell derivation of QED finite-volume effects	DI CARLO, Matteo
15:55	A massive nonperturbative renormalisation scheme for heavy quark observables	MUKHERJEE, Rajnandini

Standard Model parameters: TR7 (14:15 - 16:15)

-Conveners: Stefan Sint

time	title	presenter
14:15	Cutoff effects and scale determinations in pure gauge theory	RAMOS, Alberto

time	title	presenter
14:35	The scales r_0 & r_1 in $N_f=2+1$ QCD.	ASMUSSEN, Tom
14:55	Scale setting from a combination of lattice QCD formulations with Wilson and Wilson twisted mass valence quarks	SAEZ-GONZALVO, Alejandro
15:15	Scale setting on the 2+1+1 HISQ ensembles: progress report	BAZAVOV, Alexei
15:35	Progress on the infinite volume based gradient flow for high precision determination of the $\Lambda_{\bar{MS}}$ scale of QCD.	WONG, Chik Him
15:55	Precision determination of the Wilson-flow scale w_0	WANG FOR THE BMW COLLABORATION, Gen

Structure of hadrons and nuclei: Flex2 (14:15 - 15:55)

-Conveners: Andrea Shindler

time	title	presenter
14:15	The leading-twist distribution amplitude of the η_c meson	SAN JOSÉ PÉREZ, Miguel Teseo
14:35	Proton radii for muonic hydrogen spectroscopy from lattice QCD	SALG, Miguel
14:55	Studies of nucleon isovector structures with the PACS10 superfine lattice	TSUJI, Ryutaro
15:15	Renormalisation Group Equations for 2+1 clover Fermions	HORSLEY, Roger
15:35	Updates on the parity-odd structure function of the nucleon from the Compton amplitude	CAN, K. Utku

Theoretical developments: TR4 (14:15 - 16:15)

-Conveners: George Fleming

time	title	presenter
14:15	Grassmann bond-weighted tensor renormalization group approach to 1+1D two-color QCD with staggered fermions at finite density	KWOK, Ho Pai
14:35	Entanglement entropy by tensor renormalization group approach	TANAKA, Gota
14:55	Tensor renormalization group study of (1+1)-dimensional U(1) gauge-Higgs model at θ=π with Lüscher's admissibility condition	AKIYAMA, Shinichiro
15:15	Spectroscopy by Tensor Renormalization Group Method	ZAHRA, Fathiyya Izzatun Az
15:35	Tensor-network Toolbox for probing dynamics of non-Abelian Gauge Theories	MATHEW, Emil
15:55	Entropy in the gravitational collapse or a scalar field	VARNHORST, Lukas

Break and walk to Yoko Ono Lennon Centre (16:15 - 17:00)

Plenary (17:00 - 18:30)

-Conveners: Rajan Gupta

time	title	presenter
17:00	Hadron Structure via PDFs	HOU, Tie-Jiun
17:30	Hadron structure via GPDs	BHATTACHARYA, Shohini
18:00	Lattice QCD in the Frontier of Electron Ion Colliders	MUKHERJEE, Swagato

Saturday, 3 August 2024

Plenary (09:00 - 10:30)

  -Conveners: Sasa Prelovsek

time	title	presenter
09:00	Hadron Spectroscopy from lattice QCD: current status and future	MATHUR, Nilmani
09:45	Prospects for lattice field theory beyond the Standard Model	BERGNER, Georg

Break (10:30 - 11:00)

Plenary (11:00 - 12:30)

  -Conveners: Nilmani Mathur

time	title	presenter
11:00	Update on Glueballs	MORNINGSTAR, Colin
11:30	Nuclear Matrix Elements for Neutrinoless Double-Beta Decay	GREBE, Anthony
12:00	$U(1)\_A$ breaking in hot QCD in the chiral limit	KOVACS, Tamas G.

Box lunch pickup (12:30 - 13:15)