



## 34th International Symposium on Lattice Field Theory

24–30 July 2016

University of Southampton

<http://www.southampton.ac.uk/lattice2016/>

## Conference Information and Scientific Programme



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## Welcome

From the Local Organising Committee

The Lattice 2016 Local Organising Committee warmly welcomes you to this year's conference at the University of Southampton, and wishes you a fruitful and enjoyable stay.

Professor Gert Aarts, Swansea University  
Professor Jonathan Flynn, University of Southampton  
Dr Andreas Jüttner, University of Southampton  
Professor Kurt Langfeld, Plymouth University, University of Liverpool  
Professor Biagio Lucini, Swansea University  
Dr Antonio Rago, Plymouth University  
Professor Christopher Sachrajda, University of Southampton  
Dr Mike Teper, University of Oxford  
Dr Christopher Thomas, University of Cambridge  
Dr Matthew Wingate, University of Cambridge

## Maps

### Walking directions from Highfield Campus to University accommodation







## Highfield Campus

- 38, 40, marquee: conference catering areas
- 2a, 32, 67: plenary lectures (32, 67) and parallel sessions (2a, 32, 67)
- Dashed blue line: recommended footpath to University halls
- Cafes: building 60 (Costa Coffee), 36 (Library), 38.
- Avenue Campus: Portsmouth excursion pick-up.
- Unilink: Salisbury excursion pick-up.

## University Accommodation – Glen Eyre Halls

If you are travelling to the Glen Eyre Halls by car or taxi, the address is: Glen Eyre Halls of Residence (Main Reception), Glen Eyre Road, Bassett, Southampton, SO16 3UF. See Maps section for directions of how to get to Glen Eyre from Highfield Campus.

Please note that the bedroom accommodation will be on the other side of the complex from the reception and check-in area: if you arrive by taxi with heavy luggage, then you may wish to ask the taxi to wait while you collect your key and then to drive you to your accommodation (Hartley Grove A, B, C). Although the usual check in time is 15.00, we have arranged for early check in, so participants can arrive any time.



You are asked to vacate your bedroom by 9:30am on the day of departure and ensure that your key is returned to reception. A charge of £25 per key is made for any missing / lost keys.

The telephone number for the 24-Hour Reception at Glen Eyre is +44 (0)2380 595975.

Breakfast for participants staying at the Glen Eyre Halls will be served on Campus, in the Garden Court, Building 40 between 08:30-10:00 on Sunday 24, between 07.30 and 08.45 Monday 25 – Saturday 30, and 08:30-10:00 on Sunday 31.



## Conference Information

### **Welcome Reception**

The Welcome Reception will be held in the Hartley Suite (Building 38) on Sunday 24 July from 18:00 until 21:00.

### **Registration and conference information desk**

The conference desk is located in building 38 (see section with maps). Registration is open:

- Sunday 24 July 18:00-21:00
- Monday 25 July 08:00-09:00

For participants who arrive later, registration will be possible at the Conference Reception Desk in the Hartley Suite, Building 38.

The conference information desk will be staffed 09:00-17:00 throughout the conference and can be contacted on [lattice2016@soton.ac.uk](mailto:lattice2016@soton.ac.uk) during those hours.

### **Wireless Network Access (WiFi)**

The eduroam network can be accessed throughout the campus and in the halls. A free guest WiFi Network “Guest WiFi” (you will have to register) is accessible on campus but not in the halls. If you do not have an eduroam account and are staying in University accommodation please ask for a WiFi token at the conference desk.

### **Timetable of Talks**

The scientific programme starts at 09:00 on Monday 25 July. A full timetable of plenary and parallel talks can be found on the conference website under the “programme” tab.

The plenary talks will be held in Building 32 (EEE Building). The lecture theatre can accommodate all participants, but it will be very tight. For your comfort there will be a two-way AV broadcast to the neighbouring Building 67 (Nightingale Building), with the opportunity of asking questions from either lecture theatre.

### **Information for plenary and parallel speakers**

Plenary speakers have been advised of the time reserved for their talk. Talks in the parallel sessions are 15 minutes plus five minutes for discussion. The talks are

synchronized across all the parallel sessions and it is therefore essential for the success of the parallel programme that speakers keep to the allocated time.

Conference desktops with projectors will be used in all the sessions. Please prepare your presentation in Adobe Portable Document Format (.pdf) or Microsoft PowerPoint Format (.ppt, .pptx). No other formats can be supported.

You are required to upload your presentation via the [Indico](#) system at least one hour prior to the start of your session. There is a "My contributions" tab in the menu after logging-in. Please select this tab and click the "View" link. Click the symbol next to "files" and then in the pop-up window click on "Add Files" to upload your presentation.

## **Poster Session**

As is traditional at the Lattice Conferences, there will be a poster session between 19:00 and 21:00 on Tuesday 26 July, in Building 38. Drinks and a light supper will be available.

Posters should be in A0 portrait format (841 mm wide, 1189 mm high) or smaller. You must print out your poster before leaving for the conference and bring it with you. Please note that there are no printing facilities at the conference venue. Each poster will be assigned a number and you are asked to attach your poster to the board with the corresponding number (pins will be provided). The poster number is the abstract ID which you can find on [Indico](#) after logging in and selecting "My contributions".

Posters can be displayed from 12:00 on Tuesday 26 July to 11:30 on Thursday 28 July. Presenters who receive even numbers should be at their posters for discussions from 19:00 to 20:00, while those who receive odd numbers should be present at their posters from 20:00 to 21:00. Poster presenters are also requested to upload their presentation via the [Indico](#) system before the beginning of the conference. The upload procedure is the same as that for plenary and parallel speakers.

## **Meeting Rooms**

A number of rooms for private discussions or collaboration meetings are available. They can be reserved at the Conference Reception Desk.

## **Conference Banquet**

The conference banquet will be held at St Mary's Stadium, home of Southampton Football Club, at 19:00 on Thursday 28 July. Transport to and from the venue will be

provided via coach from the Highfield Campus interchange (please see maps).

## **Excursions**

Excursions will take place on the afternoon of Wednesday 27 July. Excursions to Salisbury will board from 12:35 at the bus interchange on Highfield Campus; excursions to Portsmouth will board from the Avenue Campus – a ten-minute walk from Highfield at 13:00. Boxed lunches will be available to collect from 12:30 in the marquee.

It is vital that you arrive on time for the excursions – we may not be able to accommodate latecomers.

## **Welcome for Accompanying Persons**

Sarah Flynn, Amalia Galdo (Jüttner) and Irena Sachrajda warmly invite all accompanying persons to meet each other at 10.00 on Monday 25 July in the Hartley Lounge, Building 38, to discuss local tourist attractions and to raise any questions they may have. Refreshments will be served.

## **Local Restaurants**

A partial list of local cafes, restaurants and pubs can be found on <http://www.southampton.ac.uk/lattice2016/cafes-pubs-and-restaurants/>. You might also wish to explore Winchester, the first capital of England, with its beautiful 11th - century cathedral and many historic buildings. Winchester is 12 miles north of Southampton and readily reachable by train (from Southampton Airport Parkway Station) or bus (see the links on <http://www.southampton.ac.uk/lattice2016/getting-around/>). A list of restaurants in Winchester is included in the above.

## **Weather**

The average high/low temperatures in Southampton in July are 22°C/14°C (72°F/57°F) but you should be aware that the standard deviation is large. You should certainly bring protection against rain (we can confidently predict that there will be between 0 and 7 rainy days during the conference).

## **UK Emergency Number**

In the UK 999 is the emergency number for police, ambulance, fire brigade, coastguard, cliff rescue, mountain rescue, cave rescue, etc. This number should be used only when urgent attendance by the emergency services is required – for example someone is seriously ill or injured, or a crime is in progress. Calls are free, and 999 can be dialled from a locked mobile phone.

## **Stores, Restaurants & Services**

A small supermarket is located on campus in 57 (see maps). There are also small supermarkets on Burgess Road (walking up University Road and turning right).

A number of cafes that also offer snacks are listed in the maps section and a more comprehensive list of pubs and restaurants in Southampton, Winchester and surroundings can be found on the conference web site

<http://www.southampton.ac.uk/lattice2016/cafes-pubs-and-restaurants/> .

## **Getting Around**

There is a hub for unilink buses on campus adjacent to the conference site. These can take you to the City Centre, Southampton Airport, Southampton Airport Parkway Station, Southampton Central Station and the Glen Eyre Halls of Residence. For network maps and timetables see the conference website.

<http://www.southampton.ac.uk/lattice2016/getting-around/>.

# Programme

## Schedule overview

	Sun 24.07	Mon 25.07	Tue 26.07	Wed 27.07	Thu 28.07	Fri 29.07	Sat 30.07
8:00-9:00		registration					
9:00-10:00		opening					
10:00-11:00		plenary	plenary	parallel	plenary	plenary	plenary
11:00-12:00		coffee	coffee	coffee	coffee	coffee	coffee
12:00-13:00		plenary	plenary	parallel	plenary	plenary	plenary
13:00-14:00		lunch	lunch		lunch	lunch	closing remarks
14:00-15:00							
15:00-16:00		parallel	parallel	excursion	parallel	parallel	
16:00-17:00		coffee	coffee		coffee	coffee	
17:00-18:00		parallel	parallel		parallel	parallel	
18:00-19:00							
19:00-20:00	registration and reception		poster session		conference dinner		
20:00-21:00							
21:00-22:00							

Monday 25 July 2016

**Registration - Building 38 (Hartley Suite) (08:00-09:00)**

**Welcome - Building 32 Room 1015 and Building 67 Room 1027 (via Video link) (09:00-09:15)**

**Plenary Session - Building 32 (EEE) Room 1015 and Building 67 (Nightingale) Room 1027 via video link (09:15-11:00)**

- Convener: Prof. Edwards, Robert

09:15	[409] From Spin Models to Lattice QCD – the Scientific Legacy of Peter Hasenfratz	WENGER, Urs
09:45	[49] Review on Hadron Spectroscopy	LIU, Chuan
10:30	[340] Resonances in Coupled-Channel Scattering	WILSON, David

**Plenary Session - Building 32 (EEE) Room 1015 and Building 67 (Nightingale) Room 1027 via video link (11:30-12:45)**

- Convener: Prof. Kuramashi, Yoshinobu

11:30	[31] Hadronic contributions to the muon $g-2$ from lattice QCD	WITTIG, Hartmut
12:15	[23] Towards a theory of the QCD string	DUBOVSKY, Sergei

### Parallel Sessions

**Chiral Symmetry - Building 67 Room 1007 (14:15-16:15)**

- Convener: Dr. Athenodorou, Andreas

14:15	[64] First Experiences with Overlap Fermions based on the Brillouin Kernel	DURR, Stephan
14:35	[158] QCD with Flavored Minimally Doubled Fermions	WEBER, Johannes Heinrich
14:55	[219] Chiral condensate from OPE of the overlap quark propagator	LIU, Zhaofeng
15:15	[327] Determination of chiral condensate from low-lying eigenmodes of Mobius domain-wall Dirac operator	HASHIMOTO, Shoji
15:35	[283] Staggered domain wall fermions	HOELBLING, Christian



## Hadron Spectroscopy and Interactions - Building B2a Room 2065 (14:15-16:15)

- Convener: Prelovsek, Sasa

14:15	[335] Heavy and light spectroscopy near the physical point, Part I: Charm and bottom baryons	HUDSPITH, Renwick J.
14:35	[334] Heavy and light spectroscopy near the physical point, Part II: Tetraquarks	FRANCIS, Anthony
14:55	[322] Lattice QCD searches for tetraquarks containing charm quarks	CHEUNG, Gavin
15:15	[100] Including heavy spin effects in a lattice QCD study of static-static-light-light tetraquarks	WAGNER, Marc
15:35	[104] Lattice QCD study of heavy-heavy-light-light tetraquark candidates	PETERS, Antje
15:55	[254] Searching for evidence of diquark states using lattice QCD simulations	FUKUDA, Ryutaro

## Hadron Structure - Building B2a Room 2077 (14:15-16:15)

- Convener: Dr. Green, Jeremy

14:15	[139] The Calculation of Parton Distributions from Lattice QCD	WIESE, Christian
14:35	[43] Proton spin decomposition and its perturbative renormalization	YANG, YIBO
14:55	[15] Quark orbital dynamics in the nucleon - from Ji to Jaffe-Manohar orbital angular momentum	ENGELHARDT, Michael
15:15	[161] Nucleon spin and quark content at the physical point	ALEXANDROU, Constantia
15:35	[243] Transverse spin densities of octet baryons	ZANOTTI, James
15:55	[353] Constructing Nucleon Operators on a Lattice for Form Factors with High Momentum Transfer	SYRITSYN, Sergey

## Nonzero Temperature and Density - Building 32 Room 1015 (14:15-16:15)

- Convener: Dr. Endrodi, Gergely

14:15	[363] Thermodynamics with physical mass staggered quarks	SZABO, Kalman
14:35	[274] Thermodynamics with continuum extrapolated overlap fermions	KATZ, Sandor Katz
14:55	[232] Strangeness at finite temperature	BORSANYI, Szabolcs
15:15	[315] Continuum limit and universality of the Columbia plot	DE FORCRAND, Philippe
15:35	[12] Critical endline of the finite temperature phase transition for 2+1 flavor QCD around the SU(3)-flavor symmetric point	NAKAMURA, Yoshifumi
15:55	[291] New results for QCD at non-vanishing chemical potentials from Taylor expansion	LAERMANN, Edwin

## Physics Beyond the Standard Model - Building 67 Room 1027 (14:15-16:15)

- Convener: Prof. Svetitsky, Benjamin

14:15	[218] The scalar sector of $SU(2)$ gauge theory with $N_F=2$ fundamental flavours	DRACH, Vincent
14:35	[200] Infrared properties of a prototype pNGB model for beyond-SM physics	HASENFRATZ, Anna
14:55	[308] Spectrum of a prototype model with the Higgs as pNGB	REBBI, Claudio
15:15	[389] Near-conformal composite Higgs or pNGB with partial compositeness?	KUTI, Julius
15:35	[357] Spectrum and mass anomalous dimension of $SU(2)$ gauge theories with fermions in the adjoint representation: from $N_f=1/2$ to $N_f=2$	BERGNER, Georg
15:55	[292] Large mass hierarchies from strongly-coupled dynamics	BENNETT, Ed

## Theoretical Developments - Building 67 Room 1003 (14:15-16:15)

- Convener: Prof. Garcia-Perez, Margarita

14:15	[101] The Slab Method to Measure the Topological Susceptibility	BIETENHOLZ, Wolfgang
14:35	[127] Determination of topological charge following several definitions	FRISON, Julien
14:55	[181] Fermion bags, topology and index theorems	CHANDRASEKHARAN, Shailesh
15:15	[309] Lattice QCD on non-orientable manifolds - part I	MAGES, Simon
15:35	[262] Lattice QCD on non-orientable manifolds - part II	TOTH, Balint
15:55	[8] Lattice QCD simulation of the Berry curvature	YAMAMOTO, Arata

## Hadron Spectroscopy and Interactions - Building B2a Room 2065 (16:45-18:45)

- Convener: Prof. Davies, Christine

16:45	[307] Importance of closed quark loops for lattice QCD studies of tetraquarks	BERLIN, Joshua
17:05	[311] Using a new analysis method to extract excited states in the scalar meson sector	FINKENRATH, Jacob
17:25	[170] Computing the static potential using non-string-like trial states	NEITZEL, Tobias
17:45	[182] Testing the hadro-quarkonium model on the lattice	KNECHTLI, Francesco
18:05	[324] Hindered M1 Radiative Decays	HUGHES, Ciaran
18:25	[237] Towards radiative transitions in charmonium	O'HARA, Cian

### Hadron Structure - Building B2a Room 2077 (16:45-18:45)

- Convener: Dr. Blossier, Benoit

16:45	[379] Hadron Matrix Elements and the Feynman-Hellman Theorem	WALKER-LOUD, Andre
17:05	[287] Hadron Structure from the Feynman-Hellmann Theorem	CHAMBERS, Alexander
17:25	[136] Nucleon structure from 2+1-flavor dynamical DWF ensembles	OHTA, Shigemi
17:45	[65] Nucleon Matrix Elements at Physical Point and Cost Comparison	LIU, Keh-Fei
18:05	[240] Light-cone distribution amplitudes of the baryon octet	HUTZLER, Fabian
18:25	[297] Renormalization of three-quark operators for baryon distribution amplitudes	GRUBER, Michael

### Nonzero Temperature and Density - Building 32 Room 1015 (16:45-18:45)

- Convener: Prof. Kanaya, Kazuyuki

16:45	[160] The QCD deconfinement critical point as a function of $N_t$ with $N_f=2$ flavours of unimproved Wilson fermions	CZABAN, Christopher
17:05	[159] Roberge-Weiss transition in $N_f=2$ QCD with staggered fermions and $N_t=6$	SCIARRA, Alessandro
17:25	[143] The chiral phase transition from non-integer flavour numbers with staggered fermions	CUTERI, Francesca
17:45	[21] Roberge-Weiss periodicity and confinement-deconfinement transition	KASHIWA, Kouji
18:05	[165] The Roberge-Weiss endpoint in $N_f=2+1$ QCD at the physical point	MESITI, Michele
18:25	[41] Locating the critical end point of QCD	FISCHER, Christian

### Physics Beyond the Standard Model - Building 67 Room 1027 (16:45-18:45)

- Convener: Prof. Kuti, Julius

16:45	[197] Quark Chromoelectric Dipole Moment Contribution to the Neutron Electric Dipole Moment	BHATTACHARYA, Tanmoy
17:05	[14] Effective action for pions and a dilatonic meson - foundations	SHAMIR, Yigal
17:25	[11] Effective action for pions and a dilatonic meson - results	GOLTERMAN, Maarten
17:45	[294] Asymptotically safe gauge-Yukawa theories and functional renormalisation group	BUYUKBESE, Tugba
18:05	[60] Interacting ultraviolet completions of four-dimensional gauge theories	BOND, Andrew
18:25	[142] Finite Size Scaling of the Higgs-Yukawa Model near the Gaussian Fixed Point	CHU, David Y.-J.

**Standard Model Parameters and Renormalization - Building 67 Room 1007 (16:45-18:45)**

- Convener: Dr. Cichy, Krzysztof

16:45	[263] On the accuracy of perturbation theory in QCD	SINT, Stefan
17:05	[251] The $N_f=3$ gradient flow coupling running from 4GeV to 200MeV	RAMOS, Alberto
17:25	[107] Precision determination of the strong coupling at the electroweak scale	SOMMER, Rainer
17:45	[234] Determining $\alpha_s$ by using the gradient flow in the quenched theory	LAMBROU, Eliana
18:05	[4] Numerical determination of the $\Lambda$ -parameter in SU(3) gauge theory from the twisted gradient flow coupling	UENO, Ryoichiro
18:25	[228] Running coupling from Wilson flow for three quark flavors	SCHIERHOLZ, Gerrit

**Theoretical Developments - Building 67 Room 1003 (16:45-18:45)**

- Convener: Prof. Frezzotti, Roberto

16:45	[42] Beyond complex Langevin equations: positive representation of Feynman path integrals directly in the Minkowski time	WOSIEK, Jacek
17:05	[116] Phase structure analysis of CP(N-1) model using Tensor renormalization group	KAWAUCHI, Hikaru
17:25	[53] The multi-flavor Schwinger model with chemical potential - Overcoming the sign problem with Matrix Product States	KÜHN, Stefan
17:45	[46] Diagrammatic Monte-Carlo simulations of the large N SU(N)xSU(N) principal chiral model based on the weak-coupling trans-series expansion	BUIVIDOVICH, Pavel
18:05	[284] New polynomially exact integration rules on U(N) and SU(N)	HARTUNG, Tobias
18:25	[194] How to make a quantum black hole with ultra-cold gases	HANADA, Masanori

**Public Lecture: From the Origins of Mass to the Stability of Matter: Lattice QCD and Supercomputers - Building 58 Room 1067 (19:00-20:00)**

19:00	[411] From the Origins of Mass to the Stability of Matter: Lattice QCD and Supercomputers	LELLOUCH, Laurent
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Tuesday 26 July 2016

**Plenary Session - Building 32 (EEE) Room 1015 and Building 67 (Nightingale) Room 1027 via video link (09:00-10:45)**

- Convener: Prof. Alexandrou, Constantia

09:00	[401] Nuclear Physics	SAVAGE, Martin
09:45	[330] New simulation strategies for lattice QCD	ENDRES, Michael
10:15	[235] Tensor networks	TAKEDA, Shinji

**Plenary Session - Building 32 (EEE) Room 1015 and Building 67 (Nightingale) Room 1027 via video link (11:15-12:30)**

- Convener: Dr. Zanotti, James

11:15	[118] Hadron Structure	COLLINS, Sara
12:00	[39] From C to Parton Sea: Bjorken-x dependence of the PDFs	LIN, Huey-Wen

**Parallel Sessions**

**Hadron Spectroscopy and Interactions - Building B2a Room 2065 (14:00-16:00)**

- Convener: Dudek, Jozef

14:00	[187] The Rho Resonance from Twisted Mass Lattice QCD	WERNER, Markus
14:20	[9] Two-flavor simulations of the $\rho(770)$ and the role of the $K\bar{K}$ channel	HU, Bin
14:40	[336] Utilising optimised operators and distillation to extract scattering phase shifts	WOSS, Antoni
15:00	[62] Angular and chiral content of the $\rho$ and $\rho'$ mesons	ROHRHOFER, Christian
15:20	[105] Hadron scattering and resonances	BRICENO, Raul
15:40	[193] Progress on three-particle quantization condition	SHARPE, Stephen

**Hadron Structure - Building B2a Room 2077 (14:00-16:00)**

- Convener: Dr. Davoudi, Zohreh

14:00	[18] Disconnected and light connected HVP contributions to the muon anomalous magnetic moment	LEHNER, Christoph
14:20	[381] The connected and leading disconnected diagrams of the hadronic light-by-light contribution to muon $a_2$	JIN, Luchang

14:40	[258] The leading order hadronic contribution of the anomalous magnetic moment of the muon with $O(a)$ -improved Wilson fermions with Pade approximants from fits and time moments	HORCH, Hanno
15:00	[331] Isospin-breaking effects for meson masses and HVP, from Lattice QCD + quenched QED	HARRISON, James
15:20	[326] Leading electromagnetic corrections to meson masses and the HVP	GUELPERS, Vera
15:40	[248] Position-space approach to hadronic light-by-light scattering in the muon $g-2$ on the lattice	ASMUSSEN, Nils

### Nonzero Temperature and Density - Building 32 Room 1015 (14:00-16:00)

- Convener: Dr. Schmidt, Christian

14:00	[252] Results on the heavy-dense QCD phase diagram using complex Langevin	ATTANASIO, Felipe
14:20	[151] Testing dynamic stabilization in complex Langevin simulations	JAEGER, Benjamin
14:40	[329] Sign problem in heavy-dense QCD from a density-of-states perspective	GARRON, Nicolas
15:00	[93] Functional Fit Approach (FFA) for Density of States method: SU(3) spin system and SU(3) gauge theory with static quarks	GIULIANI, Mario
15:20	[33] Complex Langevin Dynamics for a Random Matrix Model of QCD at finite density	ZAFEIROPOULOS, Savvas
15:40	[209] Spontaneous symmetry breaking induced by complex fermion determinant --- yet another success of the complex Langevin method	ITO, Yuta

### Physics Beyond the Standard Model - Building 67 Room 1027 (14:00-16:00)

- Convener: Prof. Del Debbio, Luigi

14:00	[390] Running coupling of twelve flavors	NOGRADI, Daniel
14:20	[392] Light Isosinglet Scalar in Eight Flavor QCD	FLEMING, George
14:40	[406] Studying the Low Energy Effective Theory of Eight Flavor QCD	GASBARRO, Andrew
15:00	[238] Flavor singlet mesons in QCD with varying number of flavors	AOKI, Yasumichi
15:20	[205] Discrete $\beta$ -function of the SU(3) gauge theory with 10 massless domain-wall fermions	CHIU, Ting-Wai
15:40	[192] Selected new results from the spectroscopy of the sextet BSM model	WONG, chik him



**Standard Model Parameters and Renormalization - Building 67 Room 1007 (14:00-16:00)**

- Convener: Dr. Lambrou, Eliana

14:00	[138] Quark masses and strong coupling constant with Highly-Improved Staggered Quarks	MAEZAWA, Yu
14:20	[48] Step scaling in X-space: running of the quark mass	CICHY, Krzysztof
14:40	[339] Non-perturbative running of quark masses in three-flavour QCD	PRETI, David
15:00	[155] Determination of charm quark mass from temporal moments of charmonium correlator with Mobius domain-wall fermion	NAKAYAMA, Katsumasa
15:20	[320] Up and down quark masses and corrections to Dashen's theorem from lattice QCD and quenched QED	VARNHORST, Lukas
15:40	[111] Non-equilibration of topological charge and its effects	TOUSSAINT, Doug

**Theoretical Developments - Building 67 Room 1003 (14:00-16:00)**

- Convener: Dr. Bietenholz, Wolfgang

14:00	[30] $B \rightarrow K^* \gamma$ decays in a finite volume	RUSETSKI, Akaki
14:20	[16] Retrieving the optical potential from a Lattice simulation.	MAI, Maxim
14:40	[318] A variational method for spectral functions	ROBAINA, Daniel
15:00	[285] Applying recursive numerical integration techniques for solving high dimensional integrals	VOLMER, Julia
15:20	[67] O(3) model with Nienhuis action	WOLFF, Ulli
15:40	[179] Tensor RG calculations and quantum simulations near criticality	MEURICE, Yannick

**Algorithms and Machines - Building 67 Room 1007 (16:30-18:30)**

- Convener: Dr. Endres, Michael

16:30	[391] Monte Carlo simulation of $\phi^4_2$ and $O(N), \phi^4_3$ theories	DE PALMA, Barbara
16:50	[17] Monte Carlo methods in continuous time for lattice Hamiltonians	HUFFMAN, Emilie
17:10	[75] Applications of Jarzynski's relation in lattice gauge theories	NADA, Alessandro
17:30	[387] Computing the density of states with the global Hybrid Monte Carlo	PELLEGRINI, Roberto
17:50	[385] Overcoming strong metastabilities with the LLR method	LUCINI, Biagio
18:10	[366] Metadynamics Remedies for Topological Freezing	SANFILIPPO, Francesco

## Hadron Spectroscopy and Interactions - Building B2a Room 2065 (16:30-18:30)

- Convener: Prof. Sharpe, Stephen

16:30	[344] Kaon Kaon scattering at maximal isospin from $N_f=2+1+1$ twisted mass lattice QCD	HELMES, Christopher
16:50	[7] An $a_0$ resonance in strongly coupled $\pi$ $\eta$ , $K \overline{K}$ scattering from lattice QCD	DUDEK, Jozef
17:10	[229] The isospin-0 pion-pion scattering length from twisted mass lattice QCD	LIU, Liuming
17:30	[47] Lattice operators for scattering of particles with spin	PRELOVSEK, Sasa
17:50	[264] Glueball spectrum from $N_f=2$ lattice QCD study on anisotropic lattices	CHEN, Ying

## Hadron Structure - Building B2a Room 2077 (16:30-18:30)

- Convener: Syritsyn, Sergey

16:30	[305] Hadronic contribution to the muon magnetic moment at the physical point	KAWANAI, Taichi
16:50	[337] Moments of the hadron vacuum polarization at the physical point	MIURA, Kohtaroh
17:10	[394] The strange and charm contributions to $a_\mu$ with physical quark masses using M <sup>obius</sup> domain wall fermions	MATTHEW, Spraggs
17:30	[355] Matching issue in quasi parton distribution approach	ISHIKAWA, Tomomi
17:50	[134] Partially conserved axial vector current and applications	PERLT, Holger

## Nonzero Temperature and Density - Building 32 Room 1015 (16:30-18:30)

- Convener: Dr. Di Renzo, Francesco

16:30	[20] Complex Langevin for Lattice QCD at $T=0$ and $\mu \geq 0$ .	SINCLAIR, Donald
16:50	[79] On complex Langevin dynamics and zeroes of the determinant	AARTS, Gert
17:10	[395] Comparison of CLE and reweighting for QCD at nonzero density	SEXTY, Denes
17:30	[242] On the condition for correct convergence in the complex Langevin method	SHIMASAKI, Shinji
17:50	[225] Gauge cooling for the singular-drift problem in the complex Langevin method - an application to finite density QCD	NAGATA, Keitaro
18:10	[124] Reweighting trajectories from the complex Langevin method	BLOCH, Jacques

## Physics Beyond the Standard Model - Building 67 Room 1027 (16:30-18:30)

- Convener: Nogradi, Daniel

16:30	[73] Numerical Analysis of Discretized $\mathcal{N}=(2,2)$ SYM on Polyhedra	KAMATA, Syo
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16:50	[71] S-duality in lattice N=4 super Yang-Mills	GIEDT, Joel
17:10	[177] Latest results from lattice N=4 supersymmetric Yang-Mills	SCHAICH, David
17:30	[295] Spectroscopy of two dimensional N=2 Super Yang Mills theory	AUGUST, Daniel
17:50	[173] D=5 Maximally Supersymmetric Yang-Mills on the Lattice	JOSEPH, Anosh
18:10	[186] Simulations of N=1 supersymmetric Yang-Mills theory with three colours	GIUDICE, Pietro

### Theoretical Developments - Building 67 Room 1003 (16:30-18:30)

- Convener: Prof. Okawa, Masanori

16:30	[226] Six-dimensional regularization of chiral gauge theories on a lattice I	FUKAYA, Hidenori
16:50	[227] Six-dimensional regularization of chiral gauge theories on a lattice II	YAMAMURA, Ryo
17:10	[6] Borici-Creutz fermions on 2-dim lattice	GOSWAMI, Jishnu
17:30	[97] Sea quark QED effects and twisted mass fermions	FREZZOTTI, Roberto
17:50	[191] Search for a continuum limit of the PMS phase	AYYAR, Venkitesh
18:10	[296] Tensor renormalization group approach to higher dimensional fermions	SAKAI, Ryo

### Poster session - (19:00-21:00)

19:00	[154] Chiral phase transition in (2 + 1)-flavor QCD on $N_{\tau} = 6$ lattices	LI, Sheng-Tai
19:00	[106] Some Statistics on Women in Lattice QCD	LIN, Huey-Wen
19:00	[122] Ground state charmed meson and baryon spectra for $N_f=2+1+1$	RAE, Thomas
19:00	[128] Pseudo-scalar decay constants on three-flavour CLS ensembles with open boundaries	HOFMANN (UNIVERSITY OF REGENSBURG), Stefan
19:00	[140] RG scaling at chiral phase transition in two-flavor QCD	ISHIKAWA, Ken-ichi
19:00	[184] Hierarchically deflated conjugate residues	YAMAGUCHI, Azusa BOYLE, Peter
19:00	[230] Update on $N_f=3$ finite temperature QCD phase structure with Wilson-Clover fermions	TAKEDA, Shinji
19:00	[222] Towards extracting the timelike pion form factor on CLS 2-flavour ensembles	ERBEN, Felix
19:00	[212] Tuning of hopping parameters in Oktay-Kronfeld action for heavy quarks on the $N_f=2+1+1$ MILC HISQ ensemble.	PARK, Sungwoo
19:00	[24] Looking forward to new lattice inputs for flavour phenomenology	KIRK, Matthew
19:00	[350] Further Study of BRST-Symmetry Breaking on the Lattice	CUCCHIERI, Attilio
19:00	[236] Simulation of SU(2) gauge theory with improved domain-wall fermions	MATSUFURU, Hideo

19:00	[368] Flux Tubes at Finite Temperature	BICUDO, Pedro
19:00	[214] Relaxation time of the fermions in the magnetic field (II) - away from strong magnetic field limit -	ONOGI, Tetsuya
19:00	[224] Status report on $\epsilon_K$ with lattice QCD inputs	LEE, Weonjong
19:00	[80] Perturbative calculation of $Z_q$ and $Z_m$ at the one-loop level using improved staggered quarks	CHOI, Benjamin Jaedon
19:00	[52] Strange Quark Magnetic Moment and Charge Radius of the Nucleon at Physical Point	SUFIAN, Raza
19:00	[356] A local update algorithm for supersymmetric Yang-Mills quantum mechanics	WENGER, Urs
19:00	[50] Zero-momentum SU(2) gluon correlator at various boundary conditions	BOGOLUBSKY, Igor
19:00	[270] Mass anomalous dimension of SU(2) using the spectral density method	SUORSA, Joni
19:00	[206] The Hadronic Vacuum Polarisation contribution to the anomalous magnetic moment of the muon	DAVIES, Christine
19:00	[282] Platform Independent Profiling of a QCD Code	KRSTIC MARINKOVIC, Marina
19:00	[210] Calculation of Quark Condensates and Chirality using Improved Staggered Fermions	JEONG, Hwancheol
20:00	[13] New Noise Subtraction Methods in Lattice QCD	BARAL, Suman
20:00	[87] Approaching the conformal window in SU(2) field theory: a systematic study of the spectrum for $N_f=2,4,6$ , and 8.	TÄHTINEN, Sara
20:00	[69] Isovector Axial Charge with Current Improvement	YANG, YIBO
20:00	[61] Complex Langevin Dynamics In 1+1d QCD At Non-Zero Densities	SCHMALZBAUER, Sebastian
20:00	[57] pMR: A high-performance communication library	GEORG, Peter
20:00	[45] A G(2)-QCD Neutron Star	HAJIZADEH, Ouraman
20:00	[5] Fermions with long-range interactions using a matrix-product-states approach	SZYNISZEWSKI, Marcin
20:00	[397] Nucleon EDM from Chromo EDM using Domain-Wall Fermion	OHKI, Hiroshi SYRITSYN, Sergey
20:00	[393] BSM Kaon mixing at the Physical Point	KETTLE, Julia
20:00	[349] Long-Distance Properties of Landau Gluon and Ghost Propagators and Deconfinement	MENDES, Tereza
20:00	[323] Prediction of positive parity Bs mesons and search for the X(5568)	MOHLER, Daniel
20:00	[345] Applications of Gradient flow to Non-perturbative renormalization of quark bi-linears	ORGINOS, Kostas
20:00	[27] Discussion of the Loop Formula for the fermionic determinant	STAMATESCU, Ion-Olimpiu

20:00	[261] Gradient flow observables and boundary $O(a)$ improvement of the Schroedinger functional	RUBEO, Argia
20:00	[257] The relativistic Bose gas at finite chemical potential	RAGO, Antonio
20:00	[249] New extended interpolating fields for hadron correlation functions	SCARDINO, Francesco
20:00	[211] Relaxation time of the fermions in the magnetic field (I) - the case for relativistic fermions -	KAGIMURA, Aya
20:00	[199] $O(4)$ scaling analysis in two-flavor QCD at finite temperature and density with improved Wilson quarks	UMEDA, Takashi
20:00	[185] Momentum smearing	LANG, Bernhard
20:00	[171] Charmed meson physics from three-flavour lattice QCD	ECKERT, Kevin
20:00	[141] Perturbative running of the twisted Yang-Mills coupling in the gradient flow scheme	IBANEZ BRIBIAN, Eduardo
20:00	[131] Heavy-heavy current improvement for calculation of $\bar{B} \rightarrow D^{(*)} \ell \bar{\nu}$ semi-leptonic form factors using the Oktay-Kronfeld action -- 2	LEEM, Jaehoon

## Wednesday 27 July 2016

### Parallel Sessions

#### Algorithms and Machines - Building 67 Room 1007 (09:00-11:00)

- Convener: Prof. Peardon, Mike

09:00	[152] Domain decomposition and multilevel integration for fermions I	SCHAEFER, Stefan
09:20	[150] Domain decomposition and multilevel integration for fermions II	CÈ, Marco
09:40	[246] The DDalphaAMG solver library	ROTTMANN, Matthias
10:00	[34] Adaptive Aggregation-based Domain Decomposition Multigrid for Twisted Mass Fermions	BACCHIO, Simone
10:20	[361] Domain Wall Fermion Simulations with the Exact One-Flavor Algorithm	MURPHY, David
10:40	[37] A simple method to optimize HMC performance	BUSSONE, Andrea

#### Applications Beyond QCD - Building 67 Room 1003 (09:00-11:00)

- Convener: Dr. Tantalò, Nazario

09:00	[147] Absence of bilinear condensate in three-dimensional QED	KARTHIK, Nikhil
09:20	[300] Finite size and infra-red effects in QCD plus QED	RAKOW, Paul
09:40	[220] Infrared features of dynamical QED+QCD simulations	YOUNG, Ross
10:00	[293] Four-Fermion Theories with Exact Chiral Symmetry in Three Dimensions	SCHMIDT, Daniel
10:20	[66] Numerical simulation of Dirac semimetals	KOTOV, Andrey
10:40	[74] Competing order in the fermionic Hubbard model on the hexagonal graphene lattice	VON SMEKAL, Lorenz

#### Nonzero Temperature and Density - Building 32 Room 1015 (09:00-11:00)

- Convener: Dr. Benjamin, Jaeger

09:00	[276] Simulating low dimensional QCD on Lefschetz thimbles	SCHMIDT, Christian
09:20	[40] Lefschetz-thimble approach to the Silver Blaze problem of one-site fermion model	TANIZAKI, Yuya
09:40	[123] Thimble regularization of gauge theories: general formalism and first applications	ERUZZI, Giovanni
10:00	[130] Simulating thimble regularization of lattice quantum field theories	DI RENZO, Francesco
10:20	[114] Complex spectrum of spin models for finite-density QCD	NISHIMURA, Hiromichi
10:40	[174] Study of the sign problem in canonical approach	SUZUKI, Asobu



**Standard Model Parameters and Renormalization - Building 67 Room 1027 (09:00-11:00)**

- Convener: tba

09:00	[273] Non-perturbative matching of HQET heavy-light axial and vector currents in $N_f=2$ lattice QCD	HEITGER, Jochen
09:20	[82] Non perturbative renormalization of flavor singlet quark bilinear operators in lattice QCD	PIEMONTE, Stefano
09:40	[217] Non-Perturbative Renormalization of Nucleon Charges with Automated Perturbative Subtraction	VON HIPPEL, Georg
10:00	[137] Non-perturbative determination of improvement coefficients using coordinate space correlators in $N_f=2+1$ lattice QCD	KORCYL, Piotr
10:20	[176] A massive momentum-subtraction scheme	KHAMSEH, Ava
10:40	[352] Lattice study of Wilson line operators	PANAGOPOULOS, Haralambos

**Theoretical Developments - Building B2a Room 2077 (09:00-11:00)**

- Convener: Hanada, Masanori

09:00	[373] Renormalisation of the scalar energy-momentum tensor with the Wilson flow	EHRET, Susanne
09:20	[68] Renormalization constants of the lattice energy momentum tensor using the gradient flow	CAPPONI, Francesco
09:40	[233] The gradient flow coupling from numerical stochastic perturbation theory	DALLA BRIDA, Mattia
10:00	[364] Continuing the Saga of Fluffy Mirror Fermions	GRABOWSKA, Dorota
10:20	[172] Lattice Conformal Field theory on Curved Manifolds	RICHARD BROWER, Richard

**Weak Decays and Matrix Elements - Building B2a Room 2065 (09:00-11:00)**

- Convener: Prof. Meinel, Stefan

09:00	[132] Heavy-heavy current improvement for calculation of $\langle \bar{B} \rightarrow D^{(*)} \ell \bar{\nu} \rangle$ semi-leptonic form factors using the Oktay-Kronfeld action -- 1	BAILEY, Jon
09:20	[164] $V_{cb}$ from $\langle \bar{B}^0 \rightarrow D^{*+} \ell^+ \bar{\nu} \rangle$ zero-recoil form factor using 2+1+1 flavour HISQ and NRQCD	HARRISON, Judd
09:40	[81] $B_c$ decays from highly improved staggered quarks and NRQCD	LYTLE, Andrew
10:00	[310] $B_{(s)} \rightarrow D_{(s)}$ semileptonic decays with NRQCD-HISQ valence quarks	MONAHAN, Chris
10:20	[321] Semi-leptonic $B$ decays with charming final state	WITZEL, Oliver

10:40	[328] Calculation of hadronic matrix elements contributing to the $B_s\text{-}\bar{B}_s$ width difference	WINGATE, Matthew
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### Algorithms and Machines - Building 67 Room 1007 (11:30-12:30)

- Convener: Mr. Cossu, Guido

11:30	[317] Optimization of the Domain Wall Dslash Kernel in Columbia Physics System	LIN, Meifeng
11:50	[190] Algorithms for disconnected diagrams.	GAMBHIR, Arjun
12:10	[10] A method to compute derivatives of functions of large complex matrices	PUHR, Matthias

### Chiral Symmetry - Building 67 Room 1003 (11:30-12:30)

- Convener: Dr. Durr, Stephan

11:30	[332] Comparing different definitions of the topological charge	ATHENODOROU, Andreas
11:50	[244] $\theta$ -dependence of the massive Schwinger model	ROYO, Eduardo
12:10	[271] Real-time simulations of anomaly induced transport in external magnetic field	VALGUSHEV, Senia

### Nonzero Temperature and Density - Building 32 Room 1015 (11:30-12:30)

- Convener: Dr. Sexty, Denes

11:30	[201] Equation of state in (2+1)-flavor QCD with gradient flow	KANAYA, Kazuyuki
11:50	[319] The QCD equation of state at finite density from analytical continuation	GÜNTHER, Jana
12:10	[188] Phase diagram of the O(3) model from dual lattice simulations	BRUCKMANN, Falk

### Physics Beyond the Standard Model - Building 67 Room 1027 (11:30-12:30)

- Convener: Prof. Giedt, Joel

11:30	[103] SUNny gluonia as DM	SONI, amarjit
11:50	[202] dark matter from one-flavor SU(2) gauge theory	LEWIS, Randy

### **Theoretical Developments - Building B2a Room 2077 (11:30-12:30)**

- Convener: Prof. Josef, Wosiek

11:30	[216] Volume reduction through perturbative Wilson loops	GARCIA-PEREZ, Margarita
11:50	[92] Meson masses and decay constants at large N	OKAWA, Masanori
12:10	[303] 't Hooft model on the lattice	GONZALEZ-ARROYO, Antonio

### **Weak Decays and Matrix Elements - Building B2a Room 2065 (11:30-12:30)**

- Convener: Dr. Kaneko, Takashi

11:30	[241] Current correlators in the coordinate space at short distances	TOMII, Masaaki
11:50	[313] Electromagnetic corrections to leptonic decay rates of charged pseudoscalar mesons: finite volume effects.	TANTALO, Nazario
12:10	[253] Electromagnetic corrections to the leptonic decay rates of charged pseudoscalar mesons: lattice results	SIMULA, Silvano

### **Excursion - (13:00-19:00)**

## Thursday 28 July 2016

### Plenary Session - Building 32 (EEE) Room 1015 and Building 67 (Nightingale) Room 1027 via video link (09:00-10:45)

- Convener: Prof. Shigemitsu, Junko

09:00	[32] Impact of lattice QCD on CKM phenomenology	BLANKE, Monika
09:45	[304] Heavy flavor physics	ZHOU, ran
10:15	[369] Neutrinoless double beta decay from lattice QCD	NICHOLSON, Amy

### Plenary Session - Building 32 (EEE) Room 1015 and Building 67 (Nightingale) Room 1027 via video link (11:15-12:30)

- Convener: Dr. Kronfeld, Andreas

11:15	[400] QED Corrections to Hadronic Observables	PATELLA, Agostino
12:00	[402] Presentation of 2016 Kenneth Wilson Award	

### Parallel Sessions

#### Algorithms and Machines - Building 67 Room 1007 (14:00-16:00)

- Convener: Prof. Wettig, Tilo

14:00	[359] Introduction to the Quantum EXpressions (QEX) framework	OSBORN, James
14:20	[267] Block Solver for multiple right hand sides on NVIDIA GPUs	WAGNER, Mathias
14:40	[259] Accelerating Lattice QCD Multigrid on GPUs Using Fine-grained Parallelization	CLARK, Kate
15:00	[362] Progress Report on Staggered Multigrid	WEINBERG, Evan
15:20	[44] A performance evaluation of CCS QCD Benchmark on Intel Xeon Phi (KNC) systems	ISHIKAWA, Ken-Ichi
15:40	[354] MILC Staggered Conjugate Gradient Performance on Intel KNL	LI, Ruizi

#### Hadron Spectroscopy and Interactions - Building B2a Room 2065 (14:00-16:00)

- Convener: Prof. Wagner, Marc

14:00	[266] Charm physics by $N_f=2+1$ Iwasaki gauge and the six stout smeared $O(a)$ -improved Wilson quark actions on a $96^4$ lattice	NAMEKAWA, Yusuke
14:20	[383] Spectroscopy of charmed mesons from lattice QCD	TIMS, David
14:40	[269] Impact of dynamical charm quarks	KORZEC, Tomasz

15:00	[36] Coupled-channel analysis of $D\pi$ , $D\eta$ and $D_{s1}\bar{K}$ scattering using lattice QCD	MOIR, Graham
15:20	[2] Charm-strange mesons and D K scattering	THOMAS, Christopher
15:40	[265] Near threshold states $D_{s0}^{*}\left(2317\right)$ and $D_{s1}\left(2460\right)$	COX, Antonio

### Hadron Structure - Building B2a Room 2077 (14:00-16:00)

- Convener: Dr. Wiese, Christian

14:00	[38] Charge radii and higher electromagnetic moments with lattice QCD in nonuniform background fields	DAVOUDI, Zohreh
14:20	[386] A high-statistics lattice QCD study of nucleon sigma terms	LELLOUCH, Laurent
14:40	[302] Form factors from moments of correlation functions	CHANG, Chia Cheng
15:00	[358] Nucleon Vector and Axial-Vector Form Factors	JANG, Yong-Chull
15:20	[91] Computing the nucleon Dirac radius directly at $Q^2=0$	HASAN, Nesreen
15:40	[94] Light and strange axial form factors of the nucleon at pion mass 317 MeV	GREEN, Jeremy

### Nonzero Temperature and Density - Building 32 Room 1015 (14:00-16:00)

- Convener: Prof. Laermann, Edwin

14:00	[316] Open charm correlators and spectral functions at high temperature	SKULLERUD, Jon-Ivar
14:20	[231] Charm quark diffusion coefficient from nonzero momentum Euclidean correlator in temporal channel	IKEDA, Atsuro
14:40	[121] Stochastic approaches to extract spectral functions from Euclidean correlators	SHU, Haitao
15:00	[370] Stochastic reconstruction of charmonium spectral functions at finite temperature	OHNO, Hiroshi
15:20	[25] A gauge invariant Debye mass for the complex heavy-quark potential	ROTHKOPF, Alexander
15:40	[245] Static and non-static vector screening masses	STEINBERG, Aman

### Physics Beyond the Standard Model - Building 67 Room 1027 (14:00-16:00)

- Convener: Prof. Golterman, Maarten

14:00	[189] Phenomenology of a composite Higgs model: lessons for the lattice.	DEL DEBBIO, Luigi
14:20	[108] Check of a new non-perturbative mechanism for elementary fermion mass generation	GAROFALO, Marco
14:40	[125] Lines of Constant Physics in a 5-d Gauge-Higgs Unification Scenario	ALBERTI, Maurizio

15:00	[3] Physical spectra and the limits of perturbative estimates in a theory with a Higgs	MAAS, Axel
15:20	[22] The physical spectrum of a partially Higgsed gauge theory	TOEREK, Pascal

### Weak Decays and Matrix Elements - Building 67 Room 1003 (14:00-16:00)

- Convener: Prof. Lubicz, Vittorio

14:00	[85] Chiral Perturbation Theory at finite volume or with twisted boundary conditions	BIJNENS, Johan
14:20	[148] Kaon semileptonic decays with $N_f=2+1+1$ HISQ fermions and physical light quark masses	GAMIZ, Elvira
14:40	[115] Leptonic decay-constant ratio $f_{K/f_\pi}$ from clover-improved $N_f=2+1$ QCD	SCHOLZ, Enno E.
15:00	[129] Towards a determination of the ratio of the kaon to pion decay constants	HORSLEY, Roger
15:20	[56] $V_{us}$ from inclusive determinations based on hadronic tau data	MALTMAN, Kim
15:40	[195] $V_{us}$ from inclusive strange tau decay data and lattice HVP	OHKI, Hiroshi

### Hadron Spectroscopy and Interactions - Building B2a Room 2065 (16:30-18:30)

- Convener: Walker-Loud, Andre

16:30	[110] Baryon interactions in lattice QCD: the direct method vs. the HAL QCD potential method	IRITANI, Takumi
16:50	[117] Luescher's finite volume test for two-baryon systems with attractive interactions	AOKI, Sinya
17:10	[113] Systematic study of operator dependence in nucleus calculation at large quark mass	YAMAZAKI, Takeshi
17:30	[256] Properties of non-local wave function equivalent potential with generalized derivative expansion	SUGIURA, Takuya
17:50	[213] The coupled channel approach to the $\Lambda_c N - \Sigma_c N$ system in lattice QCD	MIYAMOTO, Takaya for HAL QCD Collaboration
18:10	[163] An application of stochastic LapH method to Hadron interaction in lattice QCD	KAWAI, Daisuke

### Hadron Structure - Building B2a Room 2077 (16:30-18:30)

- Convener: Dr. Hansen, Maxwell

16:30	[198] Nucleon form factors near the physical point in 2+1 flavor QCD	KURAMASHI, Yoshinobu
16:50	[280] Nucleon form factors and couplings with $N_{\mathcal{f}}=2+1$ Wilson fermions	HARRIS, Tim



17:10	[162] Nucleon electromagnetic and axial form factors with $N_f=2$ twisted mass fermions at the physical point	KOUTSOU, Giannis
17:30	[178] Disconnected diagrams with twisted-mass fermions	VAQUERO, Alejandro
17:50	[196] Nucleon charges and form factors from clover-on-clover and clover-on-HISQ simulations	GUPTA, Rajan
18:10	[371] The Nucleon Axial Form Factor from HISQ	MEYER, Aaron

### Nonzero Temperature and Density - Building 32 Room 1015 (16:30-18:30)

- Convener: Dr. Bruckmann, Falk

16:30	[86] QCD with isospin chemical potential: pion condensation	ENDRODI, Gergely
16:50	[90] QCD with isospin chemical potential: low densities and Taylor expansion	BRANDT, Bastian
17:10	[112] Study of the phase diagram of dense QCD with $N_f=2$ within lattice simulation	NIKOLAEV, Aleksandr
17:30	[149] Two-colour QCD at finite density with two flavours of staggered quarks	HOLICKI, Lukas
17:50	[239] Non-Local effective SU(2) Polyakov loop model from inverse Monte-Carlo methods	BAHRAMPOUR, Bardiya
18:10	[169] Relative weights approach to dynamical fermions at finite densities	GREENSITE, Jeffrey

### Physics Beyond the Standard Model - Building 67 Room 1027 (16:30-18:30)

- Convener: Prof. Holland, Kieran

16:30	[120] Rho meson decay width in SU(2) gauge theories with 2 fundamental flavours.	JANOWSKI, Tadeusz
16:50	[153] Gradient flow running coupling in SU(2) with 6 flavors	LEINO, Viljami
17:10	[126] Radiative contribution to the effective potential in a composite Higgs model	SVETITSKY, Benjamin
17:30	[168] Towards Partial Compositeness on the Lattice: Baryons with Fermions in Multiple Representations	JAY, William
17:50	[279] Adjoint SU(2) with four fermion interactions	RANTAHARJU, Jarno
18:10	[119] Sextet Model with Wilson Fermions	HANSEN, Martin

### Weak Decays and Matrix Elements - Building 67 Room 1003 (16:30-18:30)

- Convener: Dr. Tantaló, Nazario

16:30	[346] Towards a non-perturbative calculation of the weak Hamiltonian Wilson coefficients	BRUNO, Mattia
16:50	[380] Progress in the calculation of epsilon' on the lattice	KELLY, Christopher

17:10	[375] Progress on the lattice QCD calculation of the rare kaon decays: $K^+ \rightarrow \pi^+ \nu \bar{\nu}$	CHRIST, Norman
17:30	[407] long distance part of $\epsilon_K$ from lattice QCD	BAI, Ziyuan
17:50	[343] Progress on the lattice QCD calculation of rare kaon decays: $K^+ \rightarrow \pi^+ l^+ l^-$	LAWSON, Andrew

**Conference Dinner - (19:00-22:00)**

Friday 29 July 2016

**Plenary Session - Building 32 (EEE) Room 1015 and Building 67 (Nightingale) Room 1027 via video link (09:00-10:45)**

- Convener: Prof. Katz, Sandor Katz

09:00	[404] Lattice QCD at nonzero temperature and density	DING, Heng-Tong
09:45	[76] Heavy flavours in quark-gluon plasma	KIM, Seyong
10:15	[145] Density of States	LANGFELD, Kurt

**Plenary Session - Building 32 (EEE) Room 1015 and Building 67 (Nightingale) Room 1027 via video link (11:15-12:30)**

- Convener: Prof. Lin, David

11:15	[408] Phenomenology of Heavy Ions and LQCD	KURKELA, Alekski
12:00	[29] Energy-momentum tensor on the lattice: recent developments	SUZUKI, Hiroshi

**Parallel Sessions**

**Hadron Spectroscopy and Interactions - Building B2a Room 2065 (14:00-16:00)**

- Convener: Prof. Aoki, Sinya

14:00	[135] Baryon interactions from lattice QCD with physical masses -- Overview and S = 0, -4 sectors --	TAKUMI, Doi
14:20	[289] Baryon interactions from lattice QCD with physical masses -- S=-3 sector: XiSigma & XiLambda-XiSigma --	ISHII, Noriyoshi
14:40	[208] Baryon interactions from lattice QCD with physical masses -- S=-2 sector --	SASAKI, Kenji
15:00	[96] Lambda-Nucleon and Sigma-Nucleon interactions from lattice QCD with physical masses	NEMURA, Hidekatsu
15:20	[221] Approaching the bottom using fine lattices with Domain-wall fermions.	FAHY, Brendan
15:40	[89] Charmed-bottom mesons from Lattice QCD	MATHUR, Nilmani

**Hadron Structure - Building B2a Room 2077 (14:00-16:00)**

- Convener: Dr. Miura, Kohtaroh

14:00	[77] On the nature of an excited state	BLOSSIER, Benoît
14:20	[384] Estimating excited-state contamination in nucleon correlators using experimental data	HANSEN, Maxwell

14:40	[204] Electromagnetic pion form factor near physical point in $N_f=2+1$ lattice QCD	KAKAZU, Junpei
15:00	[272] Pion structure from twisted mass lattice QCD down to the physical pion mass	KOSTRZEWA, Bartosz
15:20	[88] Light-cone distribution amplitudes of the rho meson	GOECKELER, Meinulf
15:40	[215] Electromagnetic Form Factors through Parity-Expanded Variational Analysis	STOKES, Finn M.

### Nonzero Temperature and Density - Building 32 Room 1015 (14:00-16:00)

- Convener: Dr. Rothkopf, Alexander

14:00	[365] Axion Phenomenology from Unquenched Lattice QCD	MARTINELLI, Guido
14:20	[84] Parity doubling of nucleons and Delta baryons across the deconfinement phase transition	DE BONI, Davide
14:40	[314] Parity doubling in two-color and two-flavor gauge theory at high temperature	LEE, Jong-Wan
15:00	[146] Chiral transition, eigenmode localisation and Anderson-like models	GIORDANO, Matteo
15:20	[223] Anderson localisation of Dirac eigenmodes in high temperature QCD	COSSU, Guido
15:40	[59] Precision test of the gauge/gravity duality in two-dimensional $N=(8,8)$ SYM	KADOH, Daisuke

### Nonzero Temperature and Density - Building 67 Room 1027 (14:00-16:00)

- Convener: Dr. de Forcrand, Philippe

14:00	[341] A worm algorithm for the lattice $CP(N-1)$ model	RINDLISBACHER, Tobias
14:20	[95] The $CP(2)$ Model at Nonzero Chemical Potential	EVANS, Wynne
14:40	[290] What we can learn from two-dimensional QCD-like theories at finite density	WELLEGEHAUSEN, Bjoern
15:00	[144] Comparison of algorithms for solving the sign problem of the finite $\mu$ $O(3)$ model in 1+1 dimensions	TOROK, Csaba
15:20	[157] Scalar QCD at nonzero density	WELLNHOFER, Jacob
15:40	[278] Effective Polyakov Loop Models for QCD-like Theories at Finite Density	SCIOR, Philipp

### Vacuum Structure and Confinement - Building 67 Room 1007 (14:00-16:00)

- Convener: Dr. Cundy, Nigel David

14:00	[281] Theta dependence in the large $N$ limit	BONATI, Claudio
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14:20	[325] The large $N$ limit of the topological susceptibility of Yang-Mills gauge theory	GARCIA VERA, Miguel Francisco
14:40	[268] Squared width and profile of the confining fluxtube in the $U(1)$ LGT in 3D	DAVIDE, Vadacchino
15:00	[166] Effects of magnetic fields on quark-antiquark interactions	RUCCI, Andrea
15:20	[51] The spectra of (closed) confining flux tubes in $D=3+1$ and $D=2+1$ $SU(N)$ gauge theories.	TEPER, Michael
15:40	[58] Flux Tubes in QCD with $(2+1)$ HISQ Fermions	COSMAI, Leonardo

### Weak Decays and Matrix Elements - Building 67 Room 1003 (14:00-16:00)

- Convener: Dr. Bruno, Mattia

14:00	[1] Charm Physics with Domain Wall fermions	TSANG, Justus Tobias
14:20	[301] $D$ meson semileptonic decays in lattice QCD with Moebius domain-wall quarks	KANEKO, Takashi
14:40	[72] Hypercubic effects in semileptonic $D \rightarrow \pi$ decays on the lattice	SALERNO, Giorgio
15:00	[255] Masses and decay constants of $D^*(s)$ and $B^*(s)$ mesons in Lattice QCD with $N_f=2+1+1$ Twisted fermions	MELIS, Aurora
15:20	[372] $D$ meson semileptonic form factors with HISQ valence and sea quarks	GOTTLIEB, Steven
15:40	[378] $D$ -Meson Mixing in $2+1$ Lattice QCD and Related Topics	KRONFELD, Andreas

### Hadron Spectroscopy and Interactions - Building B2a Room 2065 (16:30-17:30)

- Convener: Prof. Mathur, Nilmani

16:30	[109] Towards the continuum limit with improved Wilson fermions employing open boundary conditions. Part 1.	SOELDNER, Wolfgang
16:50	[99] Towards the continuum limit with improved Wilson fermions employing open boundary conditions. Part 2.	BALI, Gunnar
17:10	[360] Scaling and properties of $1/a = 1$ GeV, $2+1$ flavor Mobius Domain Wall Fermion ensembles	MAWHINNEY, Robert

### Hadron Structure - Building B2a Room 2077 (16:30-18:30)

- Convener: Prof. Liu, Keh-Fei

16:30	[55] First Lattice QCD Study of Gluonic Transversity	SHANAHAN, Phiala
16:50	[83] Polarizability of pseudoscalar mesons from the lattice calculations	LUSCHEVSKAYA, Elena
17:10	[183] Lattice simulations of vector mesons in strong magnetic field	SOLOVEVA, Olga
17:30	[156] Double Parton Distributions of the Pion	ZIMMERMANN, Christian

17:50	[203] A study of the radiative transition $\pi \rightarrow \pi \gamma$ with lattice QCD	LESKOVEC, Luka
18:10	[348] Lattice calculation of the pion transition form factor $\langle \pi   \gamma^*   0 \rangle$	GERARDIN, Antoine

### Nonzero Temperature and Density - Building 32 Room 1015 (16:30-18:30)

- Convener: Szabo, Kalman

16:30	[180] Thermodynamics of strongly interacting plasma with high accuracy	PEPE, Michele
16:50	[167] Determination of latent heat at the finite temperature phase transition of SU(3) gauge theory	EJIRI, Shinji
17:10	[207] Temperature dependence of topological susceptibility using gradient flow	TANIGUCHI, Yusuke
17:30	[374] Using Wilson flow to study the deconfinement transition	DATTA, Saumen
17:50	[54] Temperature dependence of shear viscosity in SU(3)-gluodynamics	BRAGUTA, Victor
18:10	[250] Viscosity of the pure SU(3) gauge theory revisited	PASZTOR, Attila

### Nonzero Temperature and Density - Building 67 Room 1027 (16:30-18:30)

- Convener: Dr. Bloch, Jacques

16:30	[367] The Nuclear and Chiral Transition in the Strong Coupling Regime of Lattice QCD	UNGER, Wolfgang
16:50	[70] Quark Mass Dependence of the QCD Critical End Point in the Strong Coupling Limit	KIM, Jangho
17:10	[347] Thermodynamics of strongly-coupled lattice QCD in the chiral limit	VAIRINHOS, Helvio
17:30	[63] Abelian color cycles: a new approach to strong coupling expansion and dual representation for non-abelian lattice gauge theory.	MARCHIS, Carla
17:50	[133] Landau Levels in Lattice QCD	PITTLER, Ferenc
18:10	[405] Thermalisation properties of various field theories	HOMOR, Marietta Magdolna

### Vacuum Structure and Confinement - Building 67 Room 1007 (16:30-18:30)

- Convener: Prof. Leonardo, Cosmai

16:30	[396] Centre vortices are the seeds of dynamical chiral symmetry breaking	KAMLEH, Waseem
16:50	[388] Complete Monopole Dominance of the Static Quark Potential	CUNDY, Nigel David
17:10	[78] Quark confinement to be caused by Abelian or non-Abelian dual superconductivity in the SU(3) Yang-Mills theory	SHIBATA, Akihiro

17:30	[28] The Dark Side of the Propagators: analytical approach to QCD in the infrared of Minkowski space.	SIRINGO, Fabio
17:50	[286] Triple-gluon and quark-gluon vertex from lattice QCD in Landau gauge	STERNBECK, Andre
18:10	[351] Landau gauge gluon vertices from Lattice QCD	SILVA, Paulo

### Weak Decays and Matrix Elements - Building 67 Room 1003 (16:30-18:30)

- Convener: Dr. Witzel, Oliver

16:30	[288] Decay constants $f_B$ and $f_{B_s}$ and quark masses $m_b$ and $m_c$ from HISQ simulations	KOMIJANI, Javad
16:50	[312] Lattice QCD calculation of form factors for $\Lambda_b \rightarrow \Lambda(1520) \ell^+ \ell^-$ decays	MEINEL, Stefan
17:10	[299] Semi-leptonic form factors for rare $B$ decays	LIZARAZO, Edwin
17:30	[275] $B \rightarrow \pi$ semileptonic decay form factors with NRQCD/HISQ quarks	BOUCHARD, Chris
17:50	[260] Form factors in the $B_s \rightarrow K \ell \nu$ decays using HQET and the lattice	BANERJEE, Debasish
18:10	[298] Extraction of the bare form factors for the semi-leptonic $B_s$ decays	KOREN, Mateusz

### Physics Beyond the Standard Model - Building B2a Room 2065 (17:30-18:30)

- Convener: Prof. Maas, Axel

17:30	[19] Strings on the lattice and AdS/CFT	FORINI, Valentina
17:50	[377] Supergravity from Gauge Theory	BERKOWITZ, Evan

## Saturday 30 July 2016

### Plenary Session - Building 32 (EEE) Room 1015 and Building 67 (Nightingale) Room 1027 via video link (09:00-10:45)

- Convener: Prof. Hasenfratz, Anna

09:00	[338] Beyond the Standard Model: Charting Fundamental Interactions via Lattice Simulations	PICA, Claudio
09:45	[102] Strongly Coupled Composite Dark Matter	RINALDI, Enrico
10:15	[398] A New Perspective on Chiral Gauge Theories	KAPLAN, David

### Plenary Session: Conference Closing - Building 32 (EEE) Room 1015 and Building 67 (Nightingale) Room 1027 via video link (11:15-13:15)

- Convener: Prof. Christ, Norman

11:15	[399] Richard Feynman, Data-Intensive Science and the Future of Computing	HEY, Tony
11:45	[306] Machines and Algorithms	BOYLE, Peter
12:30	[403] Closing Remarks	



## Notes

## Notes



