

# Lattice2017

35<sup>TH</sup> INTERNATIONAL  
SYMPOSIUM ON  
LATTICE FIELD  
THEORY



18 - 24 JUNE 2017  
GRANADA SPAIN



UNIVERSIDAD  
DE GRANADA



Ministerio de Educación y Ciencia  
CONSEJO DE CULTURA



CSIC  
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS



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## P L A T I N U M                      S P O N S O R



As part of this mission Intel believes High Performance Computing (HPC) is critical for discovery and is a key enabler of improving all of our lives with new scientific breakthroughs and better products, delivered to market faster than ever before. To seize these opportunities requires improvements in supercomputing capabilities with balanced performance that overcomes technical barriers on I/O, power, memory, storage and compute. Intel is the leader in expanding what's possible with innovative new hardware and software products that are at the heart of most HPC clusters today. The HPC community is tackling society's toughest challenges and Intel's focus is supporting their innovation by:

- **Breaking Down the Barriers:** The Intel Scalable System Framework (Intel® SSF) offers the balanced performance needed to overcome the various technical walls limiting what can be done with today's supercomputers. Designed to work for small clusters to the world's largest supercomputers, Intel® SSF provides scalability and balance for both compute- and data intensive applications, as well as artificial intelligence and visualization. The design moves everything closer to the processor to improve bandwidth, reduce latency and allow you to spend more time processing and less time waiting.

- **Driving Artificial Intelligence:** Artificial intelligence promises to transform society on the scale of the industrial, technical, and digital revolutions before it. Machines that can sense, reason, and act will accelerate solutions to large-scale problems in myriad of fields, including science, finance, medicine and education, augmenting human capability and helping us to go further, farther, faster. Buoyed by Moore's Law and fed by a deluge of data, AI is at the heart of much of today's technical innovation. Intel is leading the way by inventing breakthrough solutions with a portfolio built on best in class technology and optimized software tools and libraries.

- **Building a Stronger Community:** Driving discoveries that improve our knowledge of the universe and improves the lives of everyone requires not just great technology tools, but the dedicated effort of scientists, engineers, and developers. Intel is proud of our history of supporting the HPC community by fostering connections across organizations through user groups, open source communities, and standards bodies.

# S P O N S O R S



UNIVERSIDAD  
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Patronato de la Alhambra y Generalife  
CONSEJERÍA DE EDUCACIÓN, CULTURA Y DEPORTE



CSIC

CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS



Instituto de Física de Cantabria



Institute of Cosmos Sciences



UNIVERSITAT DE  
BARCELONA



UNIVERSITAT  
DE VALÈNCIA



Universidad  
Zaragoza

CP<sup>3</sup> Origins  
Cosmology & Particle Physics



INDIGO - DataCloud

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# W E L C O M E

The 35th International Symposium on Lattice Field Theory Local Organising Committee warmly welcomes you to this year's conference at the monumental city of Granada, Spain, and wishes you a fruitful and enjoyable stay.

## The Local Organising Committee

- Vicente Azcoiti (Universidad de Zaragoza)
- Isabel Campos (IFCA - CSIC)
- Eduardo Follana (Universidad de Zaragoza)
- Patrick Fritzsche (CERN)
- Elvira Gámiz Sánchez ( Universidad de Granada - CAFPE)
- Margarita García (UAM - IFT UAM/CSIC)
- Antonio González-Arroyo (UAM - IFT UAM/CSIC)
- Gregorio Herdoíza (UAM - IFT UAM/CSIC)
- Pilar Hernández (IFIC - Universidad de Valencia)
- Federico Mescia (ICC - Universidad de Barcelona)
- Michele Della Morte (Centre for Cosmology and Particle Physics Phenomenology - Dinamarca)
- Assumpta Parreño (ICC - Universidad de Barcelona)
- Carlos Pena (UAM - IFT UAM/CSIC)
- Alberto Ramos (CERN)
- José Rodríguez-Quintero ( Universidad de Huelva - CAFPE)



# LOCAL INFORMATION

Granada is a city that has always fascinated visitors. They are spellbound by the beauty of the architecture and design of the Moorish citadel and palaces of the Alhambra and the sensual harmony of water and gardens in the Generalife, and equally enchanted by unforgettable sounds and dances of flamenco in the caves of the Sacromonte. Above all, Granada is a city of majestic buildings and small squares, streets and old houses. Attendees will enjoy spectacular sights such as the sunset from the old Albayzin quarter, with its picturesque and narrow streets and in the Christian city the splendid Cathedral and Royal Chapel.

## Granada Conference and Exhibition Centre (Palacio de Congresos de Granada)

The complex is very close to the city centre, in the Paseo del Violón, by the Genil river, and easily reached from all the main access roads leading into the city from all directions. In particular, its distance to the airport is about 15 kilometers. The area of the building exceeds 45,000 m<sup>2</sup>, built on seven levels.

Address:

Paseo del Violón, s/n  
18006 - Granada  
Tel.: (+34) 958 246 700



## Weather

The average temperatures in Granada in June are 28°C / 14°C (82°F / 57°F) and 41% relative humidity but you should be aware that the standard deviation is large. The UV index is high (9) in June. You should take precautions and use sun protection SPF 30+.

You can check the weather forecast in, for example, [www.aemet.es](http://www.aemet.es)

## Emergency Number

In the European Union 112 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 112 can be dialled from a locked mobile phone.

**IN CASE OF  
EMERGENCY  
CALL 112**



## Local Transportation

The venue can be easily reached from everywhere in Granada using public transportation. Nine different local bus lines have stops at the Conference Centre:

**LAC, S1, S2, S3, U3, SN1, SN2, SN3, C7**

An ordinary bus ticket costs 1.20 euros but if you buy a travel card the bus trip would cost you 0.79 euros. The minimum recharge value of a travel card is 5 euros. Buses typically start to run around 7:00 and stop around 23:00-23:30

There are two types of city (urban) buses in Granada: *blue buses (LAC)* and *red buses*. These buses use two different types of ticketing systems, but the same single ticket or travel card is valid on both blue and red buses.



For detailed information on the bus lines, timetables and fares, you can check:

- Transportes Rober website (in Spanish): [www.transportesrober.com](http://www.transportesrober.com)  
( bus lines itineraries in <http://www.transportesrober.com/transporte/lineas.htm> )
- for information in English: <http://www.lovegranada.com/transport/granada-city-buses>  
( bus lines itineraries in <http://www.lovegranada.com/transport/granada-bus-map/> )

### **Red Buses - big city buses and small Alhambra/Albaicin/Sacromonte buses**

You can buy a single bus ticket or a travel card directly on the bus by paying the driver, or at the vending machines at LAC bus stops. The travel card can also be topped up by the bus driver or at the vending machines. A single ticket or travel card cannot be purchased from newspaper kiosks or tobacconists. Please enter the buses through the front door only.

### **Blue Buses - LAC, high-capacity long buses**

Here, the story is different. You cannot buy bus tickets from the driver! Single tickets or travel cards have to be purchased at the vending machines next to city bus stops before boarding the bus. You must validate your trip each time you board or change buses by simply placing or swiping the card or ticket (which has a barcode) on the small validating machine or on the bigger vending machine. There is no need to validate the single ticket after purchasing it at the LAC bus stop. However, you must validate the ticket before boarding LAC bus if you bought the ticket on a red bus.

## Taxis

Taxis in Granada are white with a green stripe and are not expensive. You can hail a taxi on the street or catch one from one of the many taxi ranks. A green light indicates availability.

You can order a taxi calling at *Teleradio taxi*: (+34) 958 280 654 (Spanish)

( <http://www.granadainfo.com/taxiinfo.htm> )



## Stores, Restaurants & Services

See area guide on the Maps section for the location of supermarkets, ATM machines, pharmacies, parkings and coffee shops around the venue. The same information can also be found in our website.

( <http://wpd.ugr.es/~lattice2017/local-information/venue-and-maps/> )

Some restaurants and bars near the Conference Centre are listed on our website, and shown in the map included in the Maps section. A list of more formal restaurants, pubs and coffee shops can also be found in there.

( <http://wpd.ugr.es/~lattice2017/local-information/restaurants-bars-tapas-and-pubs/> )

## Tapas Guide

Granada is one of the few remaining cities in Spain still serving tapas on the house. Most bars in Granada will serve up a free tapa with every drink.

Typically, a tapas bar gives out the same tapas all at once for the first round of drinks, something different for the second round of drinks... In some places you choose from a menu, but usually no more than two different choices per party are allowed. In Granada **caña** refers to the smallest size for a draft beer (~25cl), **tubo** is a bigger size (~33cl).

***TIP:** When a waiter sees you eyeing the menu, they may think you're going to order food. As in pay for it. So, even if you are planning on ordering something on the menu, WAIT. Order your first round of drinks and wait to receive your complimentary tapas. Then order your food.*

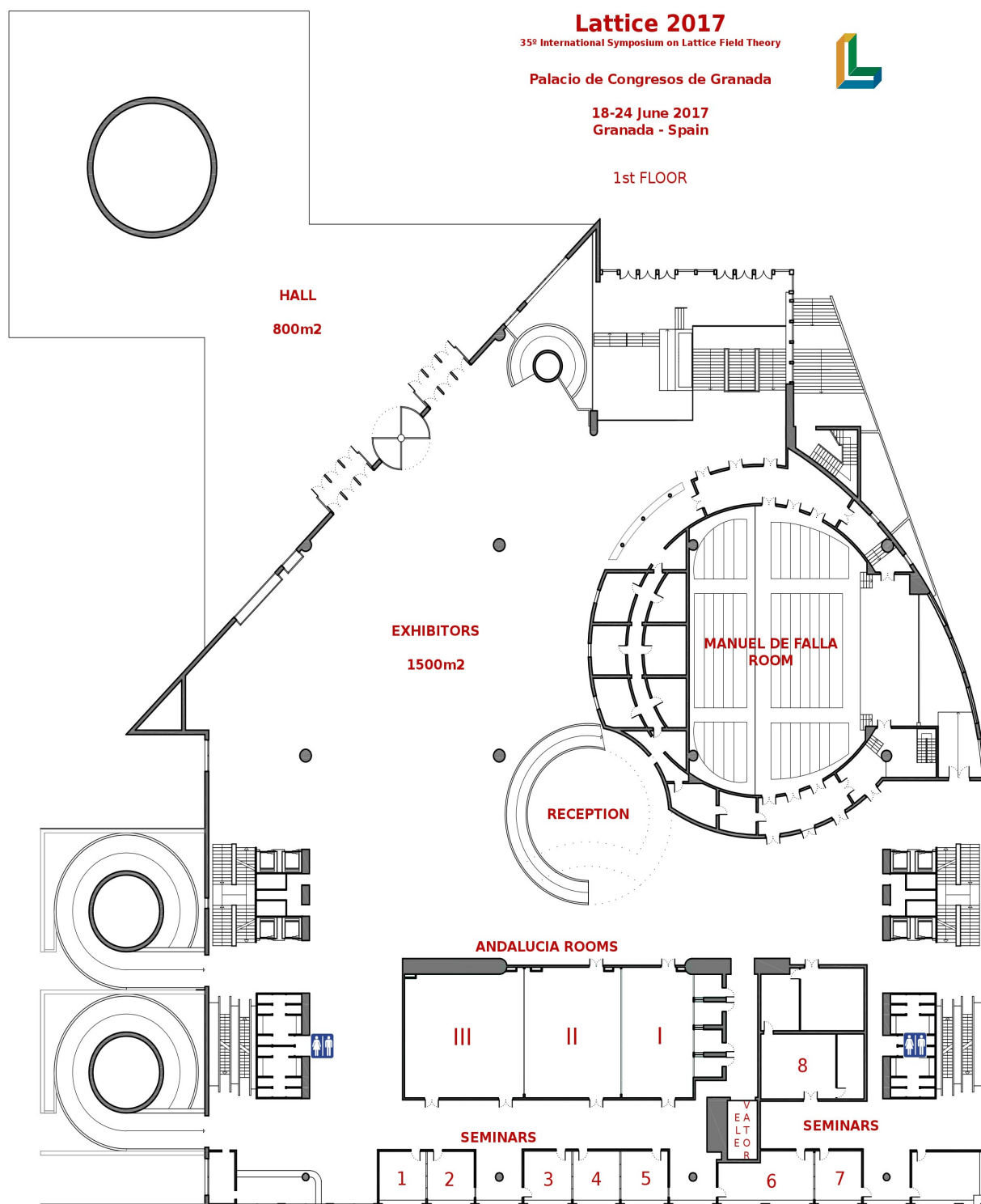
***TIP:** If you like beer, you should not leave Granada without having tried **Alhambra 1925** (green bottle)*

There are so many tapas bars in Granada that it is difficult to make a selection. Instead, you can try walking around the best tapas areas and try different places.

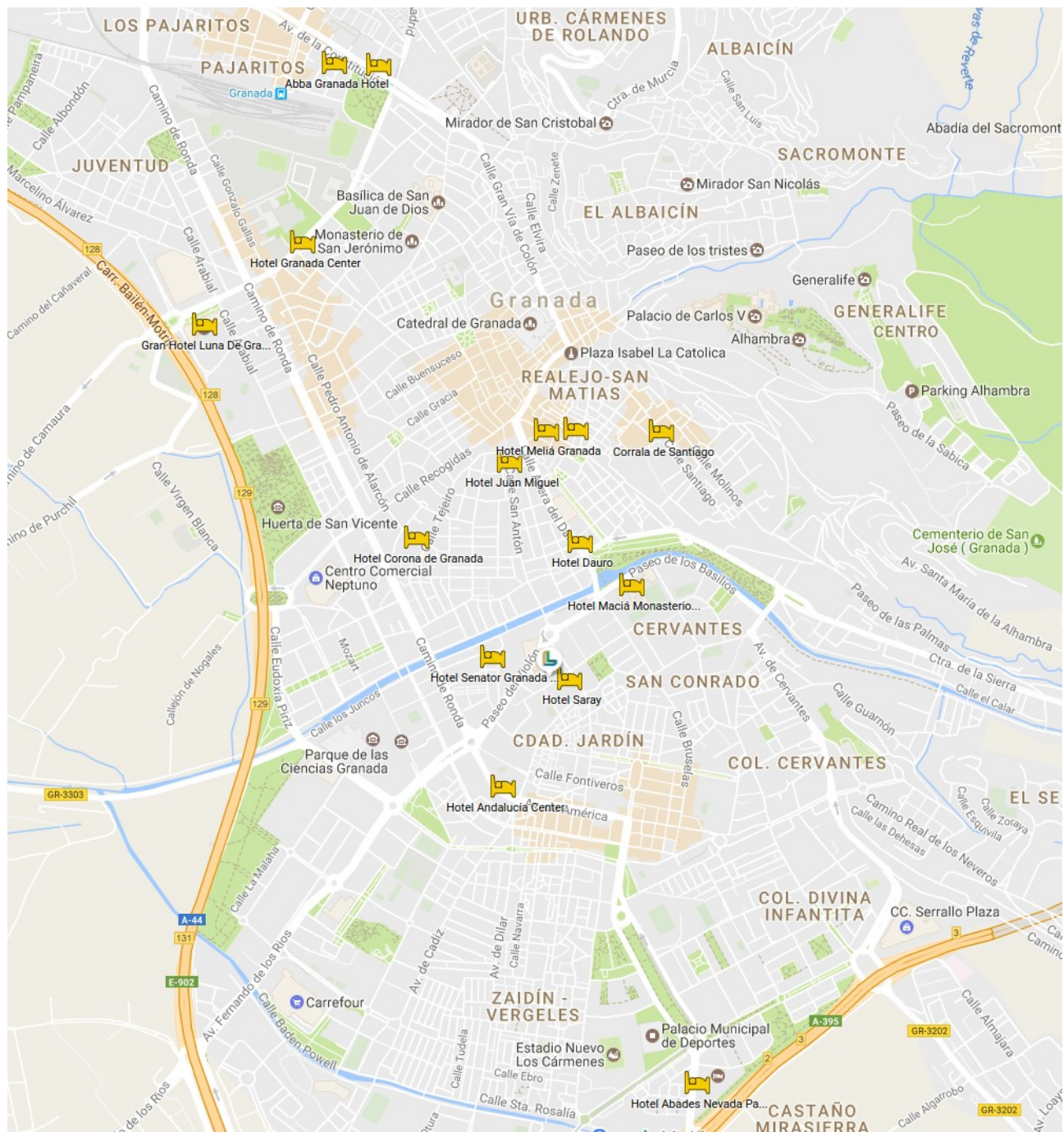
# M A P S

## Granada Conference and Exhibition Centre

All plenary and parallel sessions, as well as the poster exhibition, will take place in the **first floor** of the Conference Centre (map below). The plenary talks will be held in the Manuel de Falla auditorium.



## Accommodation Map

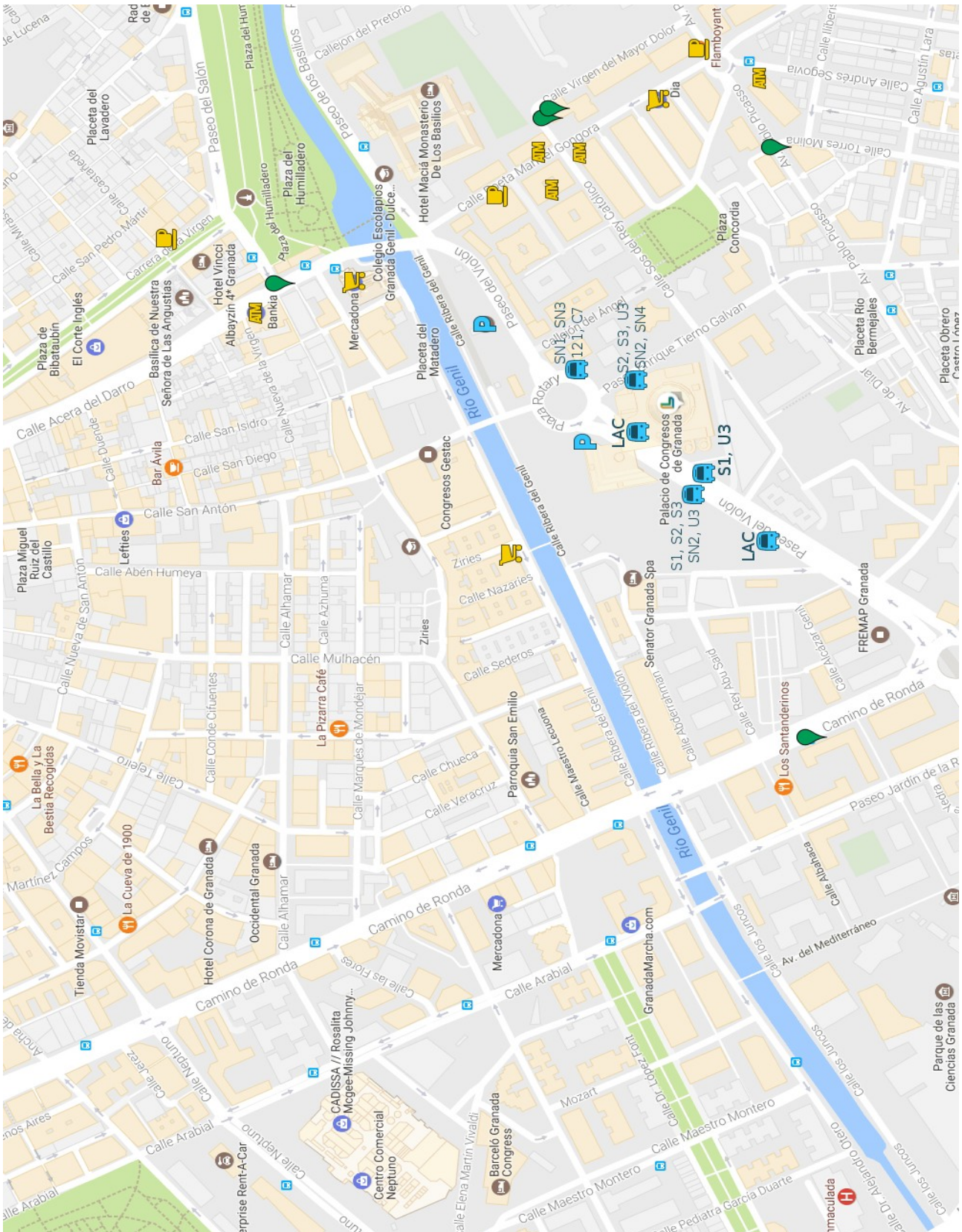


- Hotel Senator (Paseo del Violon s/n)
- Hotel Saray (Paseo Profesor Tierno Galván, 4)
- Hotel Meliá (C/ Angel Ganivet, 7)
- Hotel Andalucía Center (Avda. de América, 3)
- Hotel Corona de Granada (C/ Pedro Antonio de Alarcón, 10)
- Hotel Monasterio de los Basílios (Paseo Basílios 2)
- Hotel Juan Miguel (C/ Acera del Darro 24)
- Hotel Dauro (C/ Acera de Darro, 19)
- Hotel Comfort Dauro (C/ Navas 5)
- Hotel Vincci Granada (Avda. de la Constitución, 18)
- Hotel Abba (Avda. Constitución, 21)
- Hotel Abades Nevada Palace (C/ de la Sultana, 3)
- Hotel Granada Center (Avenida Fuente Nueva, s/n)
- Revenue Sercotel Luna de Granada (Plaza Manuel Cano, 2)
- Corrala de Santiago (C/ Santiago, 5)



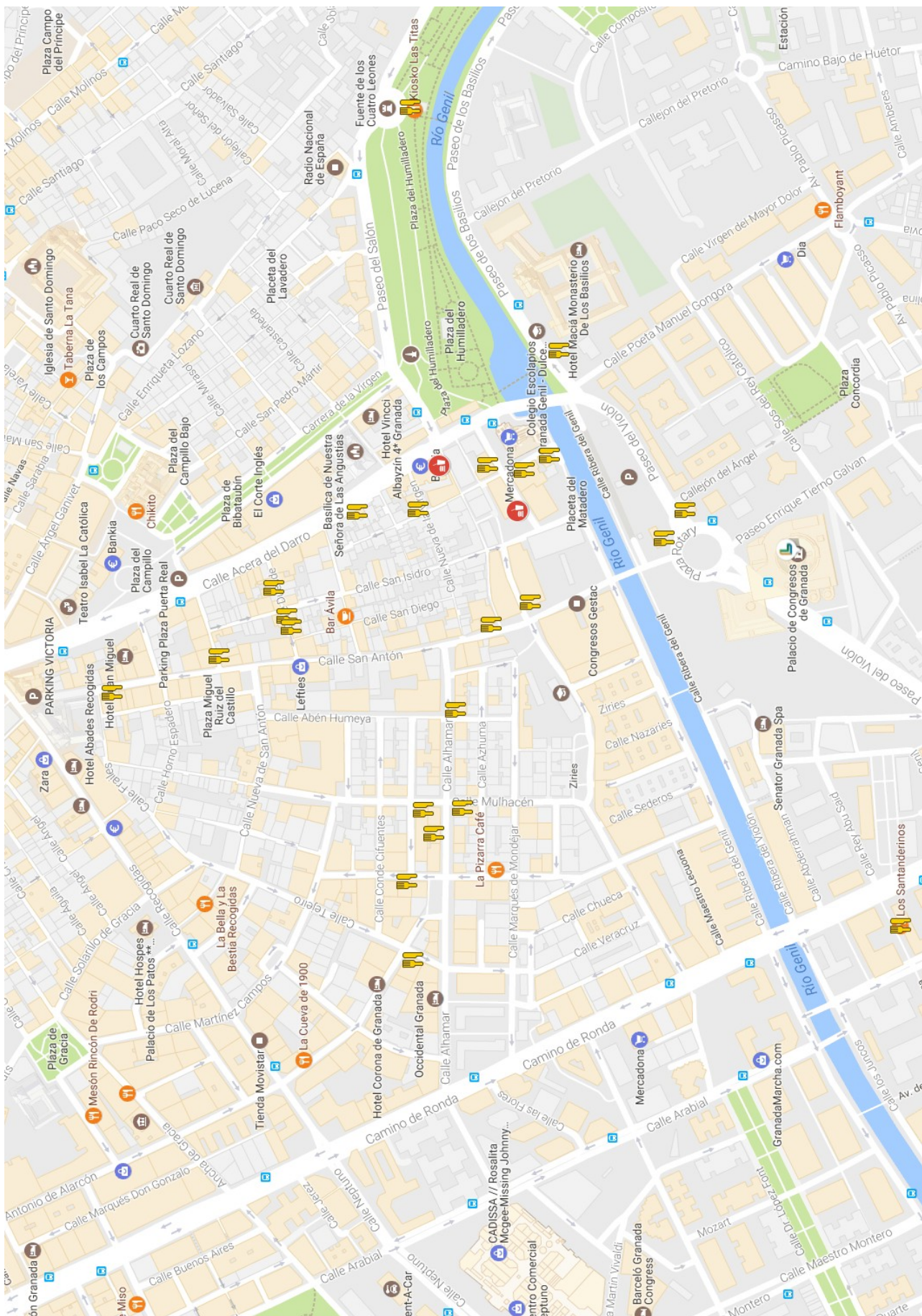
## Area Map

The following map shows the location of bus stops, supermarkets, ATM machines, pharmacies (green points), parkings and a few coffee shops around the venue.



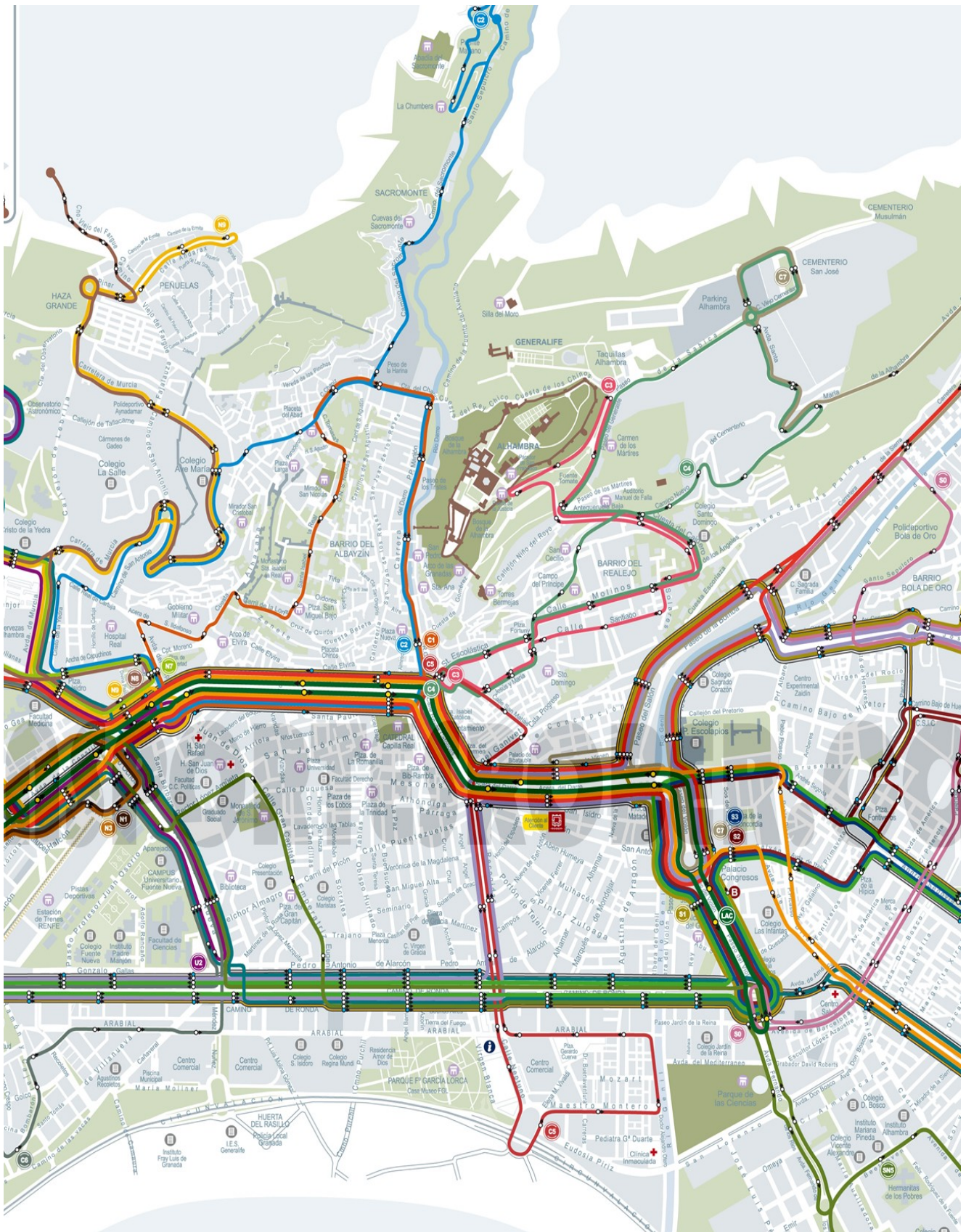


## Map of restaurants and bars near the Conference centre





## Granada Bus Map



[www.transportesrober.com](http://www.transportesrober.com)

# CONFERENCE INFORMATION

## Registration on Sunday 18th of June

Registration will be held at the Conference Centre on Sunday 18th of June from 18:00 to 20:30. A tourist information desk will also be open during those hours.

## Conference secretariat desk

The Conference secretariat desk is located in the Granada Conference and Exhibition Centre Reception (see map). Registration will be open:

- Sunday 18 June 18:00 - 20:30
- Monday 19 June 08:00 - 09:00

In addition, the Conference secretariat desk will be staffed and open for registration and information from the start until the end of the scientific program throughout the conference.

## Tourist Information Desk

A tourist information desk, next to the Reception, will be open:

- Sunday 18 June 18:00 - 20:30
- Monday 19 June 09:00 - 13:00 & 14:30 - 18:00

The staff at the Conference secretariat desk will be also available to answer your practical questions about Granada.

## Meeting rooms

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

## Wireless Network Access (WiFi)

Wireless Network Access is available in the Conference Centre.

- SSID: LATTICE2017
- Password: LATTICE2017



## Lunch at the Conference Centre

For those of you who have registered including lunch, the lunch buffet will be served in the second floor of the Conference centre,

## Timetable of talks

The conference scientific programme will start Monday, 19 June at 9:00, and end at lunchtime on Saturday, 24 June. All plenary and parallel sessions, as well as the poster exhibition, will take place in the first floor of the Conference Centre. The plenary talks will be held in the Manuel de Falla auditorium.



## 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 within 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 by lunch time (on Monday, Tuesday, Thursday and Friday) or by the end of the poster session (if your talk is on Wednesday). 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

There will be a poster session between 19:30 and 21:30 on Tuesday 20 June, in the Exhibitors Zone. Refreshments 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 for the entire duration of the conference. Presenters can check on Indico whether they should be at their posters for discussions from 19:30 to 20:30 or 20:30 to 21:30. 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.

## Mobile App > Conference4me



The Conference4me smartphone application provides you with a convenient tool for planning your participation in Lattice 2017

One week before the conference you will be able to download the Lattice 2017 mobile view using Conference4Me on your smartphone. The program is synchronized with our Indico server and thus always up-to-date. The application provides:

- Offline access to agenda with sessions and presentations
- Possible agenda updates whenever Internet is available
- Ongoing view with currently active sessions and presentations
- Personalized My Agenda view with calendar sync
- Conference news (delivered via Twitter channel or #hashtag)
- Push notifications for important information from conference organizers
- Travel info section: hotels, public transport, other news
- Venue info: conference location map, plans of buildings
- List of authors, speakers, session chairs etc.
- Integrated search functionality
- 3 mobile platforms (iOS, Android, Windows Phone)
- Supported languages: English, German, Spanish, Polish, Portuguese



To download the mobile app, please visit <http://conference4me.eu/download> or type 'conference4me' in Google Play, iTunes App Store or Windows Phone Store.

# S O C I A L   E V E N T S

## Welcome reception (*Monday 19 June*)

The Welcome reception will take place at walking distance from Alhambra at Carmen de los Mártires.

*Buses will depart from the Conference Centre at 18:30.*



## Alhambra night visit (*Monday 19 June*)

The visit will take place right after the Welcome reception. The participants will walk from Carmen de los Mártires to Alhambra.



## Conference banquet (*Thursday 22 June*)

The conference banquet will be held at La Mamunia, at 20:30 on Thursday 22 June.

*Buses will depart from the Conference Centre at 20:00 and will return the participants to the Conference Centre after the dinner.*



# E X C U R S I O N S

The afternoon of Wednesday, 21 June, has been allocated as a free afternoon.

## Route of Federico García Lorca

Federico García Lorca (1898-1936), the Spanish poet and playwright, was born in Granada, and throughout his life kept a strong link with the city. An emblematic member of the "Generation of '27" group, he is widely considered one of the authors that has best captured Spanish popular culture in the twentieth century. This tour visits the places where Lorca spent his childhood and youth, and much of his universe was shaped. You will also see interesting collections of original works by Lorca and other artists of the period.

*Itinerary:* Bus pick up at Palacio de Congresos (venue), Huerta de San Vicente (Granada), Fuente Vaqueros, Valderrubio, back to Palacio de Congresos. We will also visit Alfacar and Víznar.

*Pickup time:* 16:30

*Duration:* approximately 2 hours and a half

## Historic Granada

This is a guided tour of two of the most emblematic monuments of Granada, the Royal Chapel and the Cathedral. Two different worlds represented by two different styles in architecture: Gothic and Renaissance. The tour will guide you through a decisive moment in the history of Granada, a period of profound social, economic and cultural change. It also includes a visit to the Monastery of La Cartuja and the city center.

*Itinerary:* Bus pick up at Palacio de Congresos (venue), Monastery of La Cartuja, Granada city center, Cathedral and Royal Chapel.

*Pickup time:* 16:00

*Duration:* approximately 2 hours and a half

## Albayzin and Sacromonte

Walking tour of Albayzin and Sacromonte, the most emblematic districts in Granada. The Alhambra and the Albayzin, situated on two adjacent hills, form the medieval part of Granada. The residential district of the Albayzin is a rich repository of Moorish vernacular architecture declared a World heritage site in 1994. The Sacromonte is the traditional neighborhood of the Granadian Gypsies, who settled in Granada after the Christian conquest of the city in 1492. The route begins late afternoon. After the guided walking tour at twilight, all the members of the group will be treated to a drink and tapa.

*Itinerary:* Pick up at Palacio de Congresos (venue), guided visit of Granada city center (Carrera de la Virgen, San Matías, Plaza de Santa Ana), Sacromonte, Albayzin, drink and tapa.

*Pickup time:* 18:00

*Duration:* approximately 2 hours

# P R O G R A M M E

## SCHEDULE OVERVIEW

TIME	Sun 18 Jun	Mon 19 Jun	Tue 20 Jun	Wed 21 Jun	Thu 22 Jun	Fri 23 Jun	Sat 24 Jun	TIME
08:00		Registration 08:00 – 09:00						08:00
08:30								08:30
09:00		Opening 09:00 – 09:30	Plenary 09:00 – 10:45	Parallel 09:00 – 11:00	Plenary 09:00 – 10:45		Plenary 09:00 – 11:00	09:00
09:30		Plenary 09:30 – 10:45				Plenary 09:30 – 11:15		09:30
10:00								10:00
10:30								10:30
11:00		Coffee Break 10:45	Coffee Break 10:45	Coffee Break 11:00	Coffee Break 10:45		Coffee Break 11:00	11:00
11:30		Plenary 11:15 – 12:30	Plenary 11:15 – 12:45	Parallel 11:30 – 13:30	Plenary 11:15 – 12:45	Coffee Break 11:15	Plenary 11:30 – 12:30	11:30
12:00						Plenary 11:45 – 13:00		12:00
12:30		Lunch Break 12:30 – 14:30	Lunch Break 12:45 – 15:00		Lunch Break 12:45 – 15:00	Lunch Break 13:00 – 15:00	Closing 12:30	12:30
13:00			Women in Lattice			IAC meeting		13:00
13:30								13:30
14:00				Free Afternoon				14:00
14:30		Parallel 14:30 – 16:10	Parallel 15:00 – 16:40		Parallel 15:00 – 16:40	Parallel 15:00 – 16:40		14:30
15:00								15:00
15:30								15:30
16:00		Coffee Break 16:10						16:00
16:30		Parallel 16:40 – 18:00	Coffee Break 16:40		Coffee Break 16:40	Coffee Break 16:40		16:30
17:00			Parallel 17:10 – 19:10		Parallel 17:10 – 19:10	Parallel 17:10 – 19:10		17:00
17:30								17:30
18:00	Registration							18:00
18:30								18:30
19:00	Palacios de Congresos de Granada	Welcome Reception 19:00 – 20:15						19:00
19:30			Poster Session 19:30 – 21:30					19:30
20:00	18:00 – 20:30	Alhambra Visit Night 20:15 – 22:00		Free Afternoon				20:00
20:30					Social Dinner 20:30 – 00:00			20:30
21:00								21:00
21:30								21:30
22:00								22:00

Indico Link:

<https://makondo.ugr.es/event/0/>

*Note: Any change or error of printing can be consulted in our indico web page.*



M O N D A Y - 1 9 J u n e 2 0 1 7

**Opening - Auditorio Manuel de Falla (09:00-09:30)**

Welcome to Granada and to Lattice 2017

**Plenary Session - I - Auditorio Manuel de Falla (09:30-10:45)**• *Conveners: Weisz, Peter**time [id] title*

09:30 [462] Scientific and personal recollections of Roberto Petronzio

10:15 [85] Stochastic locality and master-field simulations of very large lattices

*Presenter*

PARISI, Giorgio

LÜSCHER, Martin

**Plenary Session - II - Auditorio Manuel de Falla (11:15-12:30)**• *Conveners: Hasenfratz, Anna**time [id] title*

11:15 [79] Quantum simulations of high energy physics models

12:00 [220] Multi-boson block factorization of fermions

*presenter*

CIRAC, Ignacio

GIUSTI, Leonardo

**Vacuum Structure and Confinement - Seminarios 1+2 (14:30-16:10)**• *Conveners: Greensite, Jeff**time [id] title*

14:30 [12] Instanton-dyon ensembles reproduce deconfinement and chiral restoration phase transitions

14:50 [255] Instanton effects on CP-violating gluonic correlators

15:10 [411] Three-point gluonic Green's functions: low-momentum behaviour and the QCD running coupling

15:30 [299] Instanton dominance over  $\alpha_s$  at low momenta from lattice QCD simulations at  $\beta=0$ ,  $\beta=2+1$  and  $\beta=2+1+1$ .

15:50 [free slot]

*presenter*

SHURYAK, Edward

MORI, Shingo

RODRIGUEZ-QUINTERO, José

DE SOTO, Feliciano

**Algorithms and Machines - Seminario 8 (14:30-16:10)**• *Conveners: DeTar, Carleton**time [id] title*

14:30 [22] Multigrid accelerated simulations for Twisted Mass fermions

14:50 [262] Advances in Adaptive Multigrid Algorithm for QUDA

15:10 [343] Update on a Staggered Multigrid Algorithm in Four Dimensions

15:30 [414] Convergence theory for adaptive smoothed aggregation multigrid methods used in lattice QCD

15:50 [409] A staggered eigensolver based on sparse matrix bidiagonalization

*presenter*

BACCHIO, Simone

CLARK, Kate

WEINBERG, Evan

WHITE, JR., Edward

OSBORN, James

## **Physics Beyond the Standard Model - Seminarios 6+7** (14:30-16:10)

• *Conveners: Rinaldi, Enrico*

time	[id] title	presenter
14:30	[155] Testing a non-perturbative mechanism for elementary fermion mass generation: lattice setup.	GAROFALO, Marco
14:50	[152] Testing a non-perturbative mechanism for elementary fermion mass generation: numerical results	DIMOPOULOS, Petros
15:10	[258] Spectroscopy of SU(4) gauge theory with simultaneous dynamical fermions in multiple representations	JAY, William
15:30	[366] Confinement study of an SU(4) gauge theory with fermions in multiple representations	AYYAR, Venkitesh
15:50	[381] Chiral transition of SU(4) gauge theory with fermions in multiple representations	HACKETT, Daniel

## **Weak Decays and Matrix Elements - Andalucía I** (14:30-16:10)

• *Conveners: Lytle, Andrew*

time	[id] title	presenter
14:30	[379] Semileptonic B-meson decays to light pseudoscalar mesons on the HISQ ensembles	KRONFELD, Andreas
14:50	[123] $B \rightarrow \pi \ell \ell \nu$ with M <sup>2</sup> bius Domain Wall Fermions	COLQUHOUN, Brian
15:10	[164] $B_s \rightarrow K \ell \ell \nu$ form factors with 2+1 flavors	GOTTLIEB, Steven
15:30	[117] Nonperturbative determination of form factors for semileptonic Bs meson decays	WITZEL, Oliver
15:50	[399] HQET form factors for $B_s \rightarrow K \ell \ell \nu$ decays beyond leading order	KOREN, Mateusz

## **Hadron Structure - Andalucía III** (14:30-16:10)

• *Conveners: Kuramashi, Yoshinobu*

time	[id] title	presenter
14:30	[370] Isovector and Isoscalar charges of the nucleon	GUPTA, Rajan
14:50	[406] Nucleon Axial and Electromagnetic Form Factors	JANG, Yong-Chull
15:10	[181] Electromagnetic form factors and axial charge of the nucleon from $N_{\text{f}} = 2 + 1$ Wilson fermions	VON HIPPEL, Georg
15:30	[33] Connected and disconnected contributions to nucleon axial form factors using $N_f=2$ twisted mass fermions at the physical point	HADJIYIANNAKOU, Kyriakos
15:50	[86] Nucleon structure from 2+1 flavor lattice QCD near the physical point	TSUKAMOTO, Natsuki

## **Hadron Spectroscopy and Interactions - Andalucía II** (14:30-16:10)

• *Conveners: Prelovsek, Sasa*

time	[id] title	presenter
14:30	[45] Scattering from finite-volume energies including higher partial waves and multiple decay channels	MORNINGSTAR, Colin
14:50	[36] Coupled-channel scattering from lattice QCD	WILSON, David
15:10	[27] $N \rightarrow \pi$ scattering in the Roper channel	MADANAGOPALAN, Padmanath
15:30	[410] The pion mass dependence of the nucleon	WALKER-LOUD, Andre
15:50	[172] Background field Landau mode operators for the nucleon	KAMLEH, Waseem



**Nonzero Temperature and Density - Auditorio Manuel de Falla** (14:30-16:10)• *Conveners:*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
14:30	[188] Axial U(1) symmetry at high temperature in 2-flavor lattice QCD	SUZUKI, Kei
14:50	[186] Topological Susceptibility in $N_f=2$ QCD at Finite Temperature	AOKI, Yasumichi
15:10	[127] Landau levels in QCD in an external magnetic field	GIORDANO, Matteo
15:30	[321] Chiral phase transition of three flavor QCD with nonzero magnetic field	TOMIYA, Akio
15:50	[62] Anderson localization in sigma models	WELLNHOFER, Jacob

**Vacuum Structure and Confinement - Seminarios 1+2** (16:40-18:00)• *Conveners: Shuryak, Edward*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
16:40	[211] QCD flux tubes across deconfinement phase transition	COSMAI, Leonardo
17:00	[239] Observation of a Coulomb Flux Tube	GREENSITE, Jeff
17:20	[242] Flux tubes in $N_f=2+1$ QCD with external fields	NEGRO, Francesco
17:40	[184] Stiff self-interacting strings in high temperature phase of QCD	BAKRY, Ahmed

**Algorithms and Machines - Seminario 8** (16:40-18:00)• *Conveners: Clark, Kate*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
16:40	[15] Optimization of the Brillouin operator on the KNL architecture	DURR, Stephan
17:00	[214] An in-depth evaluation of the Intel Omni-Path network for LQCD applications	GEORG, Peter
17:20	[374] Grid software status and performance	BOYLE, Peter
17:40	[461] Intel	SERVAT, Harald

**Physics Beyond the Standard Model - Seminarios 6+7** (16:40-18:00)• *Conveners: Lin, C.-J. David*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
16:40	[182] Higgs compositeness in $Sp(2N)$ gauge theories – Part I: the low energy theory	LUCINI, Biagio
17:00	[232] Higgs compositeness in $Sp(2N)$ gauge theories - Part II : The pure gauge model	VADACCHINO, Davide
17:20	[194] Higgs compositeness in $Sp(2N)$ gauge theories – Part III: Scale setting and topology	BENNETT, Ed
17:40	[207] Higgs compositeness in $Sp(2N)$ gauge theories - Part IV: Two-flavor $Sp(4)$ gauge theory	LEE, Jong-Wan

**Weak Decays and Matrix Elements - Andalucía I** (16:40-18:00)• *Conveners: Kelly, Christopher*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
16:40	[14] The $B_s \rightarrow D_s$ decay with highly improved staggered quarks and NRQCD	MCLEAN, Euan
17:00	[120] $B \rightarrow D^* \ell \bar{\nu}$ at non-zero recoil	VAQUERO AVILÉS-CASCO, Alejandro
17:20	[203] Calculation of $B \rightarrow D^* \ell \bar{\nu}$ form factor at zero-recoil using the Oktay-Kronfeld action	PARK, Sungwoo
17:40	[106] Decay constant and semileptonic form factors of $B_c$ meson	MATHUR, Nilmani

### **Hadron Structure - Andalucía III** (16:40-18:00)

• *Conveners: von Hippel, Georg*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
16:40	[179] Nucleon structure from 2+1-flavor domain-wall QCD	OHTA, Shigemi
17:00	[279] Nucleon radii and form factors at $Q^2=0$ using momentum derivatives	HASAN, Nesreen
17:20	[309] Isospin breaking effects on nucleon structure from fully dynamical QCD+QED	ZANOTTI, James
17:40	[257] Structure of the Nucleon and its Excitations	LEINWEBER, Derek

### **Hadron Spectroscopy and Interactions - Andalucía II** (16:40-18:00)

• *Conveners: Shintani, Eigo*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
16:40	[48] $\rho$ resonance from the $I=1$ $\pi\pi$ potential in lattice QCD	KAWAI (FOR HAL QCD COLLABORATION), Daisuke
17:00	[229] $\pi\pi$ S-wave resonant scattering from lattice QCD	PAUL, Srijit
17:20	[333] Toward pion-pion scattering amplitudes with controlled systematic errors	BULAVA, John
17:40	[316] Towards extracting the timelike pion form factor on CLS 2-flavour ensembles	ERBEN, Felix

### **Nonzero Temperature and Density - Auditorio Manuel de Falla** (16:40-18:00)

• *Conveners: Bazavov, Alexei*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
16:40	[64] Dispersion relations of charmonia above $T_c$	KITAZAWA, Masakiyo
17:00	[93] Continuum extrapolation of charmonium correlators at non-zero temperature	SANDMEYER, Hauke
17:20	[154] Thermal modifications of charmonia and bottomonia from spatial correlation functions	SHU, Hai-Tao
17:40	[free slot]	

### **Welcome Reception** - (19:00-20:15)

Buses will depart from Palacio de Congresos at 18:30

The Welcome reception will take place at Carmen de los Mártires.

Alhambra visit will take place right after the Welcome reception.

The participants will walk from Carmen de los Mártires to Alhambra.

## T U E S D A Y - 2 0 J u n e 2 0 1 7

**Plenary Session - III - Auditorio Manuel de Falla (09:00-10:45)**• *Conveners: El-Khadra, Aida X.*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
09:00	[315] B decay anomalies at LHCb	OYANGUREN, Arantza
09:30	[51] Flavor physics anomalies	BECIREVIC, Damir
10:00	[56] Recent progress in applying lattice QCD to kaon physics	FENG, Xu

**Plenary Session - IV - Auditorio Manuel de Falla (11:15-12:45)**• *Conveners: Gupta, Rajan*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
11:15	[168] Parton distributions in the LHC era	DEL DEBBIO, Luigi
11:45	[270] Multi-hadron-state contamination in nucleon observables from chiral perturbation theory	BÄR, Oliver
12:15	[21] Towards a precise calculation of the nucleon axial charge with lattice QCD	CHANG, Chia Cheng

**Women in Lattice - (12:45-15:00)**• *Conveners: Freeland, Elizabeth***Vacuum Structure and Confinement - Seminarios 1+2 (15:00-16:40)**• *Conveners: Bicudo, Pedro*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
15:00	[191] Influence of magnetic fields on the color screening masses	RUCCI, Andrea
15:20	[139] Double-winding Wilson loops in SU(N) Yang-Mills theory	MATSUDO, Ryutaro
15:40	[261] Lattice study of area law for double-winding Wilson loops	SHIBATA, Akihiro
16:00	[167] Dirac-mode analysis for quark number density and its application for deconfinement transition	DOI, Takahiro
16:20	[free slot]	

**Algorithms and Machines - Seminario 8 (15:00-16:40)**• *Conveners: Lüscher, Martin*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
15:00	[126] Fighting topological freezing in the two-dimensional CP <sup>N-1</sup> model	HASENBUSCH, Martin
15:20	[129] Ergodicity of the LLR method for the Density of States	RAGO, Antonio
15:40	[160] Constrained hybrid Monte Carlo evolution on multiscale lattices	TU, Jiqun
16:00	[276] Testing algorithms for Critical Slowing Down	COSSU, Guido
16:20	[382] Going wide and local: Block Krylov space solvers as a means to achieve better compute resource utilization	WAGNER, Mathias

## **Physics Beyond the Standard Model - Seminarios 6+7** (15:00-16:40)

• *Conveners: Janowski, Tadeusz*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
15:00	[350] Flavor-singlet spectrum in multi-flavor QCD	RINALDI, Enrico
15:20	[355] Near-conformal dynamics in $SU(3)$ $N_f = 8$ gauge theory	FLEMING, George
15:40	[357] From Walking Gauge Theory to Higgs Compositeness Using EFT	GASBARRO, Andrew
16:00	[402] A new method for the beta function in the chiral symmetry broken phase	HOLLAND, Kieran
16:20	[413] Weakly coupled conformal gauge theories on the lattice	NOGRADI, Daniel

## **Weak Decays and Matrix Elements - Andalucía I** (15:00-16:40)

• *Conveners: Koponen, Jonna*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
15:00	[218] Semileptonic $B_c$ decays from highly improved staggered quarks and NRQCD	LYTLE, Andrew
15:20	[97] $\langle \Lambda_b \rightarrow \Lambda(1520) \ell^+ \ell^- \rangle$ form factors with moving NRQCD	RENDON, Gumaro
15:40	[361] Charmed and bottom pseudoscalar meson decay constants and quark masses $m_b$ and $m_c$ from HISQ simulations	KOMIJANI, Javad
16:00	[365] Improving the theoretical prediction for the $B_s - \bar{B}_s$ width difference: matrix elements of next-to-leading order $\Delta B = 2$ operators	WINGATE, Matthew
16:20	[246] Neutral D-meson mixing matrix elements in three-flavor lattice QCD	EL-KHADRA, Aida X.

## **Hadron Structure - Andalucía III** (15:00-16:40)

• *Conveners: Syritsyn, Sergey*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
15:00	[332] Auxiliary field approach to extended operators for quasi-PDFs	GREEN, Jeremy
15:20	[38] Finite continuum quasi distributions from lattice QCD	MONAHAN, Christopher
15:40	[404] Parton distribution functions on the lattice and in the continuum	ORGINOS, Kostas
16:00	[375] Nonperturbatively Renormalized Bjorken- $x$ Hadronic Distributions	LIN, Huey-Wen
16:20	[334] Perturbative matching of continuum and lattice quasi-distributions	ISHIKAWA, Tomomi

## **Nonzero Temperature and Density - Auditorio Manuel de Falla** (15:00-16:40)

• *Conveners: Kawamoto, Noboru*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
15:00	[70] Continuum extrapolation of critical point for finite temperature QCD with $N_f=3$	TAKEDA, SHINJI
15:20	[71] Critical endline of the finite temperature phase transition for 2+1 flavor QCD away from the $SU(3)$ -flavor symmetric point	NAKAMURA, Yoshifumi
15:40	[121] Energy-momentum tensor correlation function in $N_f=2+1$ full QCD at finite temperature	TANIGUCHI, Yusuke
16:00	[124] Color screening in 2+1 flavor QCD	WEBER, Johannes
16:20	[135] Medium effects and parity doubling of hyperons across the deconfinement phase transition	DE BONI, Davide

**Nonzero Temperature and Density - Andalucía II (15:00-16:40)**• *Conveners: Ohnishi, Akira*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
15:00	[153] QCD at finite isospin chemical potential: Reweighting	SCHMALZBAUER, Sebastian
15:20	[199] QCD at finite isospin chemical potential: Phase diagram and equation of state	BRANDT, Bastian
15:40	[283] On the nature of phases at finite isospin chemical potential	GAVAI, Rajiv V
16:00	[327] Light spectrum of QCD at finite isospin density	SCIOR, Philipp
16:20	[367] Applying the density of states method to QCD at finite chemical potential	TOROK, Csaba

**Chiral Symmetry - Seminarios 1+2 (17:10-19:10)**• *Conveners: Colterman, Maarten*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
17:10	[16] SU(3) breaking and the pseudoscalar spectrum in multi-taste QCD	CREUTZ, Michael
17:30	[41] Minimally doubled fermions and spontaneous chiral symmetry breaking	OSMANAJ (ZEQIRLLARI), Rudina
17:50	[98] Distribution of the Dirac modes in QCD	CATILLO, Marco
18:10	[108] Global Symmetries of Naive and Staggered Fermions in Arbitrary Dimensions	KIEBURG, Mario
18:30	[305] Spectral statistics of the Dirac operator near a chiral symmetry restoration in a toy model	PITTLER, Ferenc
18:50	[free slot]	

**Algorithms and Machines - Seminario 8 (17:10-19:10)**• *Conveners: Giusti, Leonardo*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
17:10	[385] MILC code performance on high end CPU and GPU supercomputer clusters	LI, Ruizi
17:30	[397] Coarse Dynamical Fermion Lattices	MAWHNNNEY, Robert
17:50	[458] Fermion Bag Approach to Lattice Hamiltonian Field Theories	HUFFMAN, Emilie
18:10	[395] CLS 2+1 flavor simulations at physical light- and strange-quark masses	MOHLER, Daniel
18:30	[378] Domain Wall QCD with the Exact One Flavor Algorithm	MURPHY, David
18:50	[78] Simulation of an ensemble of $N_f=2+1+1$ twisted mass clover-improved fermions at physical quark masses	FINKENRATH, Jacob

**Physics Beyond the Standard Model - Seminarios 6+7 (17:10-19:10)**• *Conveners: Nogradi, Daniel*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
17:10	[247] Spectroscopy of the BSM sextet model	WONG, Chik Him
17:30	[260] Testing dilaton signatures of the light sigma particle as Higgs impostor in the near-conformal sextet model	KUTI, Julius
17:50	[311] SU(3) sextet model with Wilson fermions	PICA, Claudio
18:10	[156] SU(2) with fundamental fermions and scalars	TONIATO, Arianna
18:30	[320] Update on SU(2) gauge theory with $N_F=2$ fundamental flavours	JANOWSKI, Tadeusz
18:50	[111] Investigating BSM models with large scale separation	REBBI, Claudio

## **Weak Decays and Matrix Elements - Andaluc a I** (17:10-19:10)

• *Conveners: Witzel, Oliver*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
17:10	[147] $D$ meson semileptonic form factors in $N_f=3$ QCD with Moebius domain-wall quarks	KANEKO, Takashi
17:30	[227] Charm baryon semileptonic decays with lattice QCD	MEINEL, Stefan
17:50	[415] Scalar and vector form factors for the $D \rightarrow \pi(K) \ell \nu$ and towards $B \rightarrow \pi(K) \ell \nu$ semileptonic decays with $N_f=2+1+1$ Twisted fermions	SALERNO, Giorgio
18:10	[354] Tensor form factor for the $D \rightarrow \pi(K)$ transitions with Twisted Mass fermions.	RIGGIO, Lorenzo
18:30	[417] $D \rightarrow K \ell \nu$ semileptonic decay in lattice QCD with HISQ	CHAKRABORTY, Bipasha
18:50	[209] Charm Physics with Domain Wall Fermions	TSANG, Justus Tobias

## **Hadron Structure - Andaluc a III** (17:10-19:10)

• *Conveners: Green, Jeremy*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
17:10	[296] Perturbative Renormalization of Wilson line operators	PANAGOPOULOS, Haralambos (Haris)
17:30	[272] Progress in computing parton distribution functions from the quasi-PDF approach	CICHY, Krzysztof
17:50	[300] Partonic structure from the Compton amplitude	YOUNG, Ross
18:10	[278] Extracting the pion distribution amplitude from correlation functions in position space	WEIN, Philipp
18:30	[90] Current matrix element in HAL QCD method	WATANABE, Kai
18:50	[91] Bethe-Salpeter wave functions of $\eta_c(1S,2S)$ and $\psi(1S,2S)$ states: local-potential description of the charmonium system revisited	NOCHI, Kazuki

## **Hadron Spectroscopy and Interactions - Andaluc a II** (17:10-19:10)

• *Conveners: Lee, Frank*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
17:10	[266] Accessing high momentum nucleons in lattice QCD	WU, Jiajun
17:30	[143] Glueball spectrum from $N_f=2$ lattice QCD study on anisotropic lattices	SUN, Wei
17:50	[291] The $\eta'$ meson at the physical point with $N_f=2$ Wilson twisted mass fermions	URBACH, Carsten
18:10	[322] $\eta$ and $\eta'$ masses and decay constants	SIMETH, Jakob
18:30	[17] Chiral extrapolation of the $\rho(770)$ meson in $N_f=2+1$ simulations	MOLINA, Raquel
18:50	[free slot]	

**Nonzero Temperature and Density - Auditorio Manuel de Falla (17:10-19:10)**• *Conveners: Yamamoto, Arata*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
17:10	[40] Applying reweighted complex Langevin to full QCD	BLOCH, Jacques
17:30	[148] Complex Langevin simulation of QCD at finite density and low temperature using the deformation technique	SHIMASAKI, Shinji
17:50	[150] Comparative studies of the deformation techniques for the singular-drift problem in the complex Langevin method	ITO, Yuta
18:10	[236] Complex Langevin Simulations of QCD at Finite Density -- Progress Report	SINCLAIR, Donald
18:30	[264] Progress on Complex Langevin simulations of a finite density matrix model for QCD	ZAFEIROPOULOS, Savvas
18:50	[307] Improved convergence of Complex Langevin simulations	JAEGER, Benjamin

**Poster Session I – (19:30-20:30)**

<i>[id] title</i>	<i>presenter</i>
[216] An update on the BQCD Hybrid Monte Carlo program	STÜBEN, Hinnerk
[195] How to Identify Zero Modes for Improved Staggered Fermions	JEONG, Hwancheol
[190] Colour fields of the quark-antiquark excited flux tube	BICUDO, Pedro
[219] QCD in a moving frame: an exploratory study	DALLA BRIDA, Mattia
[115] The IMOM renormalization scheme on the lattice	PERLT, Holger
[134] Getting even with CLE	STAMATESCU, Ion-Olimpiu
[138] Lattice studies of the charmonium spectrum	WEISHÄUPL, Simon
[119] Charmonia in flight	PRELOVSEK, Sasa
[165] Computation of parton distribution functions from the quasi-PDF approach at the physical point	SCAPELLATO, Aurora
[237] Vector-Vector Scattering on the Lattice	ROMERO LOPEZ, Fernando
[200] Improvement of heavy-heavy current for calculation of $\langle \bar{B} \rightarrow D^{(*)} \ell \bar{\nu} \rangle$ form factors using Oktay-Kronfeld heavy-quark	LEEM, JAEHOON
[101] Singlet vs Nonsinglet Perturbative Renormalization factors of Fermion Bilinears	SPANOUDES, Gregoris
[96] Berezinskii-Kosterlitz-Thouless phase transition from lattice Sine-Gordon model	GIEDT, Joel
[60] The mass decomposition of proton	LIU, Keh-Fei
[30] N=1 supersymmetric Yang-Mills theory on the lattice	MÜNSTER, Gernot
[37] Renormalization of Supersymmetric QCD on the Lattice	COSTA, Marios
[116] Fast algorithms for chiral fermions in 2 dimensions	OSMANAJ (ZEQIRLLARI), Rudina
[469] SU(3) Yang Mills at small distances and fine lattices	SOMMER, Rainer



## Poster Session II - (20:30-21:30)

[id] title

- [317] Conformal window of SU(2) model with fundamental fermions
- [275] Topological susceptibility with a single light quark flavour
- [250] Lattice calculation of hadronic tensor of the nucleon
- [405] Extended investigation of the 12 flavor beta function
- [288] Scaling properties of fully-twisted quarks on a non-perturbatively  $O(a)$  improved Wilson sea.
- [346] Alternatives to the stochastic "noise vector" approach
- [328] Computation of the entropy of SU(3) Yang-Mills theory using shifted boundary conditions
- [329] An implementation of the DD- $\alpha$ AMG multigrid solver on Intel Knights Landing
- [363] Multi-grid Lanczos
- [286]  $b\bar{b}u\bar{d}$  four-quark systems in the Born-Oppenheimer approximation: prospects and challenges
- [303] Thermodynamics near the first order phase transition of SU(3) gauge theory using gradient flow
- [330] HPQCD B-physics update
- [263] Update on  $\epsilon_K$  with lattice QCD inputs
- [389] Approaching QUDA 1.0
- [273] Numerical experiments using deflation with the HISQ action
- [294] Towards leading isospin breaking effects in mesonic masses with  $O(a)$  improved Wilson fermions
- [408] Charge-density-wave phases of one-dimensional model with long-range repulsive interactions
- [470] Order parameters and color-flavor center symmetry in QCD

presenter

- LEINO, Viljami
- FRISON, Julien
- KEH-FEI, Liu
- FODOR, Zoltan
- UGARRIO MUÑOZ, Javier
- DE FORCRAND, Philippe
- LAUBACH, Dominik
- RICHTMANN, Daniel
- LEHNER, Christoph
- PETERS, Antje
- EJIRI, Shinji
- DAVIES, Christine
- LEE, Weonjong
- WAGNER, Mathias
- MCNEILE, Craig
- RISCH, Andreas
- SZYNISZEWSKI, Marcin
- CHERMAN, Aleksey

## W E D N E S D A Y - 2 1 J u n e 2 0 1 7

**Standard Model Parameters and Renormalization - Seminarios 1+2** (09:00-11:00)• *Conveners: Korcyl, Piotr*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
09:00	[178] Dirac spectral density and mass anomalous dimension in 2+1-flavor QCD	NAKAYAMA, Katsumasa
09:20	[32] Computation of $\alpha_{\text{qq}}$ in QCD ( $N_f=2$ ) using Lattice Perturbation Theory	CALI, Salvatore
09:40	[387] $\alpha_s$ from the Hadronic Vacuum Polarisation	HUDSPITH, Renwick
10:00	[393] Improved Results for the Strong Coupling and the Charm Quark Mass from 4-Flavor Lattice QCD	VEERNALA, Aarti
10:20	[24] Decoupling of charm beyond leading order	KNECHTLI, Francesco
10:40	[420] Estimates of scaling violations for pure SU(2) lattice gauge theory	CLARKE, David

**Weak Decays and Matrix Elements - Seminarios 6+7** (09:00-11:00)• *Conveners: Garron, Nicolas*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
09:00	[114] On the $D_s^*$ and charmonia leptonic decays	BLOSSIER, Benoît
09:20	[326] Leptonic decay constants for D-mesons from 3-flavour CLS ensembles	ECKERT, Kevin
09:40	[337] Total decay and transition rates from LQCD: (I) The method and a numerical test	ROBAINA, Daniel
10:00	[348] Total decay and transition rates from LQCD: (II) Applications and extensions	HANSEN, Maxwell T.
10:20	[142] Inclusive B decay calculations with analytic continuation	HASHIMOTO, Shoji
10:40	[292] Electromagnetic Corrections to Decay Amplitudes	MARTINELLI, Guido

**Theoretical Developments - Andalucía I** (09:00-11:00)• *Conveners: Catterall, Simon*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
09:00	[31] Lattice simulation with the Majorana positivity	YAMAMOTO, Arata
09:20	[83] Truncation of lattice $N=4$ super Yang-Mills	GIEDT, Joel
09:40	[112] Loop equation in Lattice gauge theories and bootstrap-like methods	KRUCZENSKI, Martin
10:00	[145] 4D $\mathcal{N}=1$ SYM supercurrent in terms of the gradient flow	KASAI, Aya
10:20	[213] An Alternative Lattice Field Theory Formulation Inspired by Lattice Supersymmetry, -Associativity and Regularization-	KAWAMOTO, Noboru
10:40	[215] An Alternative Lattice Field Theory Formulation Inspired by Lattice Supersymmetry: an Overview.	D'ADDA, Alessandro KAWAMOTO, Noboru

### **Hadron Structure - Andalucía III** (09:00-11:00)

• *Conveners: Izubuchi, Taku*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
09:00	[306] Computing nucleon EDM on a lattice	SYRITSYN, Sergey
09:20	[249] Electric Dipole Moment Results from Lattice QCD	DRAGOS, Jack
09:40	[323] Variance Reduction via Cluster Decomposition and nEDM with theta Term	LIU, Keh-Fei
10:00	[23] Baryon magnetic moments: Symmetries and relations	TIBURZI, Brian
10:20	[140] Magnetic moments of mesons in lattice Quantum Chromodynamics	LUSCHEVSKAYA, Elena
10:40	[234] Charmed states and SU(3) flavour symmetry breaking	HORSLEY, Roger

### **Hadron Spectroscopy and Interactions - Andalucía II** (09:00-11:00)

• *Conveners: Yamazaki, Takeshi*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
09:00	[13] Lattice QCD with mixed action - Borici-Creutz valence quarks on staggered sea	BASAK, Subhasish
09:20	[128] Mass Spectra of $D_s$ and $\Omega_c$ in $N_f=2+1+1$ Lattice QCD with Domain-Wall Quarks	CHIU, Ting-Wai
09:40	[416] Charmed and strange B mesons spectra on lattice using NRQCD	MOHANTA, Protick
10:00	[228] Spectroscopy of Light and Charmed Baryons using Overlap Fermions	MATHUR, Nilmani
10:20	[401] Towards the continuum limit light hadron spectrum on CLS ensembles	SOELDNER, Wolfgang
10:40	[290] Isospin splittings of pseudoscalar mesons from lattice QCD and quenched QED	TOTH, Balint

### **Nonzero Temperature and Density - Auditorio Manuel de Falla** (09:00-11:00)

• *Conveners: Sinclair, Donald*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
09:00	[26] Improved real-time dynamics from imaginary frequency lattice simulations	ROTHKOPF, Alexander
09:20	[217] The equation of state with non-equilibrium methods	NADA, Alessandro
09:40	[46] Thermal Simulations, Open Boundary Conditions and Switches	FLORIO, Adrien
10:00	[49] Lefschetz-thimble flows without blow-up	TANIZAKI, Yuya
10:20	[131] Simulating lattice field theories on multiple thimbles	DI RENZO, Francesco
10:40	[149] Unification of the complex Langevin method and the Lefschetz thimble method	NISHIMURA, Jun

**Standard Model Parameters and Renormalization - Seminarios 1+2 (11:30-13:30)**• *Conveners: Freeland, Elizabeth*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
11:30	[130] Non-perturbative improvement and renormalization of Wilson fermions using position space correlators	KORCYL, Piotr
11:50	[285] Non-perturbative determination of $c_{\rm V}$ , $Z_{\rm V}$ and $Z_{\rm S}/Z_{\rm P}$ in $N_f=3$ lattice QCD	HEITGER, Jochen
12:10	[459] Non perturbative determination of improvement $b$ -coefficients in $N_f=3$	DE DIVITIIS, Giulia Maria
12:30	[136] Non-perturbative renormalization of non-singlet overlap quark bilinears using RI/MOM and RI/SMOM schemes	BI, YUJIANG
12:50	[196] Calculation of $B_K$ with Wilson fermion using gradient flow	SUZUKI, Asobu
13:10	[376] Fierz relations and renormalization schemes for four-quark operators	NICOLAS, Garron

**Weak Decays and Matrix Elements - Seminarios 6+7 (11:30-13:30)**• *Conveners: Kaneko, Takashi*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
11:30	[185] BSM Kaon Mixing at the Physical Point	KETTLE, Julia
11:50	[245] Non-leptonic kaon decays at large $N_c$	DONINI, Andrea
12:10	[253] Including electromagnetism in $K \rightarrow \pi\pi$ decay calculations	CHRIST, Norman
12:30	[295] The $K_L - K_S$ Mass Difference	SACHRAJDA, Christopher
12:50	[341] Rare kaon decays $K \rightarrow \pi l + l$ with 3 flavours	LAWSON, Andrew
13:10	[345] Progress in the improved lattice calculation of direct CP-violation in the Standard Model	KELLY, Christopher

**Theoretical Developments - Andaluc a I (11:30-13:30)**• *Conveners: Chandrasekharan, Shailesh*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
11:30	[20] Wavelets and Lattice Field Theory	NEUBERGER, Herbert
11:50	[74] Abelian Color Cycle approach for the dualization of non-abelian lattice field theories	MARCHIS, Carlotta
12:10	[105] Kramers-Wannier duality with Abelian Color Fluxes for the SU(2) principal chiral model	GATTRINGER, Christof
12:30	[351] Status of QFE Lattice Field Theory on Spheres and Cylinders	BROWER, Richard
12:50	[171] Development of Grassmann higher order tensor renormalization group	YOSHIMURA, Yusuke
13:10	[297] Duals of U(N) LGT with staggered fermions	BORISENKO, Oleg

**Hadron Structure - Andaluc a III (11:30-13:30)**• *Conveners: Young, Ross*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
11:30	[267] Nucleon quark content with smeared clover fermions	HOELBLING, Christian
11:50	[391] High precision determination of $\langle \bar{s}s \rangle_0$	VARNHORST, Lukas
12:10	[377] The spin content of the nucleon	BALI, Gunnar
12:30	[197] Baryonic and mesonic 3-point functions with open spin indices	L��FFLER, Marius
12:50	[304] Nucleon average quark momentum fraction with $N_f=2+1$ Wilson fermions	OTTNAD, Konstantin
13:10	[free slot]	

## **Nonzero Temperature and Density - Auditorio Manuel de Falla (11:30-13:30)**

• *Conveners: Heller, Urs*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
11:30	[170] Critical endpoint of 4-flavor QCD with non-perturbatively $\mathcal{O}(a)$ -improved Wilson quarks	OHNO, Hiroshi
11:50	[174] Equation of state in (2+1)-flavor QCD at physical point with improved Wilson fermion action using gradient flow	KANAYA, Kazuyuki
12:10	[69] SU(4) symmetry of hadrons upon the near-zero modes truncation and its implications for high T.	GLOZMAN, Leonid
12:30	[224] Degeneracy of vector-channel spatial correlators in high temperature QCD	ROHRHOFER, Christian
12:50	[371] QCD equation of state at high temperatures	BAZAVOV, Alexei
13:10	[free slot]	

## **Nonzero Temperature and Density - Andalucía II (11:30-13:30)**

• *Conveners: Hands, Simon*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
11:30	[73] Confinement-deconfinement transition in dense SU(2) QCD	NIKOLAEV, Aleksandr
11:50	[104] Gluon and ghost correlation functions of 2-color QCD at finite density	HAJIZADEH, Ouraman
12:10	[163] Preliminary QCD phase transition line with 700 MeV dynamical fermions from Polyakov line actions	HÖLLWIESER, Roman
12:30	[310] The $\chi_{\text{exp}}/\chi_{\text{2nd}}$ ratio as a test for effective Polyakov line actions	CASELLE, Michele
12:50	[398] Dual Formulation of Lattice QCD in the strong coupling regime	UNGER, Wolfgang
13:10	[169] QCD Phase Boundary in the Strong Coupling Regime	KIM, Jangho

## T H U R S D A Y - 2 2 J u n e 2 0 1 7

**Plenary Session - V - Auditorio Manuel de Falla (09:00-09:30)**• *Conveners: Laine, Mikko*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
09:00	[61] Axions in Cosmology: What we Need from the Lattice	MOORE, Guy

**Plenary Session - V: Discussion session on axions and the chiral anomaly at finite temperature - Auditorio Manuel de Falla (09:30-10:45)**• *Conveners: Laine, Mikko*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
09:30	[222] The topological properties of QCD at high temperature: problems and perspectives	BONATI, Claudio
09:50	[125] Is axial U(1) anomalous at high temperature?	FUKAYA, Hidenori
10:10	[301] Temperature-dependence of the QCD topological susceptibility	KOVACS, Tamas G.
10:30	Round Table	

**Plenary Session - VI - Auditorio Manuel de Falla\_ (11:15-12:45)**• *Conveners: Hashimoto, Shoji*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
11:15	[403] Neutron Electric Dipole Moment	YOON, Boram
11:45	[102] Gluon structure of hadrons and nuclei	SHANAHAN, Phiala
12:15	[463] Presentation of 2017 Kenneth Wilson Award	

**Applications Beyond QCD - Seminarios 1+2 (15:00-16:40)**• *Conveners: Rakow, Paul*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
15:00	[109] Phases of a strongly coupled four-fermion theory	SCHAICH, David
15:20	[225] Four-Fermi-Theories in 3 Dimensions: Critical Behaviour	WIPF, Andreas
15:40	[331] Four-Fermi-Theories in 3 dimensions: Critical flavour number of the massless Thirring model	WELLEGEHAUSEN, Björn
16:00	[92] Particle Projection Using a Complex Langevin Method	SHILL, Christopher
16:20	[223] Equation of state of non-relativistic matter from automated perturbation theory and complex Langevin	LOHEAC, Andrew

**Software Development - Seminario 8 (15:00-16:40)**• *Conveners: Kostrzewa, Bartosz*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
15:00	[396] Lattice QCD Application Development within the US DOE Exascale Computation Project	DETAR, Carleton
15:20	[77] QCD in the Unified European Application Benchmark Suite	FINKENRATH, Jacob
15:40	[95] Filesystem Performance towards the Exascale era	HARDT, Marcus
16:00	[439] Optimizing file transfer capabilities across GEANT	HARDT, Marcus
16:20	[335] Job Management and Task Bundling	BERKOWITZ, Evan

## **Physics Beyond the Standard Model - Seminarios 6+7** (15:00-16:40)

• *Conveners: Giedt, Joel*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
15:00	[18] Improved results for mass spectrum of N=1 SU(3) supersymmetric Yang-Mills theory	BERGNER, Georg
15:20	[35] Ward identities in N = 1 supersymmetric SU(3) Yang-Mills theory on the lattice	ALI, Sajid
15:40	[269] Supermultiplets in N = 1 SU(2) supersymmetric Yang-Mills theory	GERBER, Henning
16:00	[318] N=2* Yang-Mills on the Lattice	JOSEPH, Anosh
16:20	[50] Testing holographic principle through lattice studies.	JHA, Raghav Govind

## **Theoretical Developments - Andalucía I** (15:00-16:40)

• *Conveners: Dalla Brida, Mattia*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
15:00	[10] Exponential reduction of finite volume effects with twisted boundary conditions	CHERMAN, Aleksey
15:20	[43] Local multiboson factorization of the quark determinant	CÈ, Marco
15:40	[360] High-order perturbative expansions in massless gauge theories with NSPT	FILACI, Gianluca
16:00	[52] Extracting observables from lattice data in the three-particle sector	RUSETSKY, Akaki
16:20	[133] Hubbard-Stratonovich like transformations for few-body interactions	KOERBER, Christopher

## **Hadron Structure - Andalucía III** (15:00-16:40)

• *Conveners: Blum, Thomas*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
15:00	[392] A lattice calculation of the hadronic vacuum polarization contribution to $(g-2)_\mu$	WITTIG, Hartmut
15:20	[221] Lattice QCD results for the HVP contribution to the anomalous magnetic moments of leptons	MIURA, Kohtaroh
15:40	[369] Hadronic vacuum polarization contribution to the muon $g-2$ from four flavors of highly-improved staggered quarks	VAN DE WATER, Ruth
16:00	[122] ChPT loops for the lattice: pion mass and decay constant, HVP at finite and $n\bar{n}$ -oscillations	BIJNENS, Johan
16:20	[99] Pion mass dependence of the HVP contribution to muon $g-2$	GOLTERMAN, Maarten

## **Hadron Spectroscopy and Interactions - Andalucía II** (15:00-16:40)

• *Conveners: Luu, Thomas*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
15:00	[175] A large scale simulation of 2+1 flavor lattice QCD	KURAMASHI, Yoshinobu
15:20	[55] Baryon interactions from lattice QCD with physical quark masses -- Nuclear forces and $\Xi\Xi$ forces --	DOI, Takumi
15:40	[103] Baryon interactions from lattice QCD with physical masses -- S=-3 sector: $\Xi\Sigma$ & $\Xi\Lambda$ - $\Xi\Sigma$ --	ISHII, Noriyoshi
16:00	[72] Lattice QCD studies on baryon interactions in the strangeness -2 sector with physical quark masses	SASAKI, Kenji
16:20	[349] Baryon interactions from lattice QCD with physical masses --- strangeness $S=-1$ sector ---	NEMURA, Hidekatsu



**Nonzero Temperature and Density - Auditorio Manuel de Falla (15:00-16:40)**• *Conveners: Creutz, Michael*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
15:00	[358] The pion quasiparticle in the low-temperature phase of QCD	ZAPP, Kai
15:20	[302] Finite temperature gluon propagator in Landau gauge: non-zero Matsubara frequencies and spectral densities	SILVA, Paulo
15:40	[336] Path modification method for the sign problem	OHNISHI, Akira
16:00	[39] Canonical simulations using worldline representations - an exploratory study	ORASCH, Oliver
16:20	[67] Condensation thresholds and scattering data - a study in the relativistic Bose gas at finite density	GIULIANI, Mario

**Chiral Symmetry - Seminarios 1+2 (17:10-19:10)**• *Conveners: Cossu, Guido*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
17:10	[68] Chiral Condensate and Dirac Spectrum of One-Flavor and Two-Flavor QCD at Nonzero $\theta$ -Angle	VERBAARSCHOT, Jacobus
17:30	[206] Topological susceptibility in 2+1-flavor QCD with chiral fermions	FUKAYA, Hidenori
17:50	[187] Topology in the chiral symmetry restored phase of unquenched QCD and axion cosmology.	AZCOITI, Vicente
18:10	[44] The Chiral Separation Effect in quenched finite-density QCD	PUHR, Matthias
18:30	[201] Real-time CSFT simulations of chiral plasma with overlap fermions	DROMARD, Arthur
18:50	[89] Numerical study of the 2+1d Thirring Model with U(2N)-invariant fermions	HANDS, Simon

**Software Development - Seminario 8 (17:10-19:10)**• *Conveners: Ohta, Shigemi*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
17:10	[314] An open-source code for QCD+QED with C* boundary conditions – part 1/2	PATELLA, Agostino
17:30	[313] An open-source code for QCD+QED with C* boundary conditions – part 2/2	KRSTIC MARINKOVIC, Marina
17:50	[144] Simulations of QCD and QED with C* boundary conditions	HANSEN, Martin
18:10	[271] Single flavour filtering for RHMC in BQCD	KAMLEH, Waseem
18:30	[386] Improved data covariance estimation techniques applied to lattice QCD	SIMONE, James
18:50	[free slot]	

**Physics Beyond the Standard Model - Seminarios 6+7 (17:10-19:10)**• *Conveners: Joseph, Anosh*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
17:10	[53] Two dimensional super QCD on a lattice	CATTERALL, Simon
17:30	[338] Two dimensional N=2 Super Yang Mills theory	AUGUST, Daniel
17:50	[339] Spectroscopy of four-dimensional $\mathcal{N}=1$ supersymmetric SU(3) Yang-Mills theory	STEINHAUSER, Marc
18:10	[28] Studying how the particle spectra of GUTs emerge	TOEREK, Pascal
18:30	[180] Lattice simulations of gravitational waves from non-abelian gauge fields at a tachyonic transition	TÄHTINEN, Sara
18:50	[57] Black hole evolution from real-time simulations of BFSS matrix model	BUIVIDOVICH, Pavel

## **Theoretical Developments - Andalucía I** (17:10-19:10)

• *Conveners: Onogi, Tetsuya*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
17:10	[34] Positive Representations of a Class of Complex, Periodic Measures	WOSIEK, Jacek
17:30	[173] On a modification method of Lefschetz thimbles	TSUTSUI, Shoichiro
17:50	[352] Probabilistic representations of oscillatory integrals	RUBA, Blazej
18:10	[364] Convergent expansions for lattice models with and without sign problem	SAZONOV, Vasily
18:30	[394] Matching Conditions in Complex Langevin Approach	WYRZYKOWSKI, Adam
18:50	[412] Function Support and Localization	HORVATH, Ivan

## **Hadron Structure - Andalucía III** (17:10-19:10)

• *Conveners: Van de Water, Ruth*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
17:10	[268] Lattice study of finite volume effect in HVP for muon g-2	SHINTANI, Eigo
17:30	[289] Isospin Breaking Corrections to the HVP with Domain Wall Fermions	GÜLPERS, Vera
17:50	[281] Numerical investigation of finite-volume effects for the HVP	HARRISON, James
18:10	[76] Electromagnetic corrections to the hadronic vacuum polarization of the photon within QED <sub>L</sub> and QED <sub>M</sub>	BUSSONE, Andrea
18:30	[82] HVP contributions to the muon (g - 2) including QED corrections with twisted-mass fermions	SILVANO, Simula
18:50	[25] Leading Isospin-Breaking Corrections to Meson Masses on the Lattice	GIUSTI, DAVIDE

## **Hadron Spectroscopy and Interactions - Andalucía II** (17:10-19:10)

• *Conveners: Detmold, William*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
17:10	[19] Life Outside the Golden Window: Statistical Angles on the Signal-to-Noise Problem	WAGMAN, Michael
17:30	[308] Multi-hadron spectroscopy in a large physical volume	HÖRZ, Ben
17:50	[344] Calm Multi-Baryon Operators	BERKOWITZ, Evan
18:10	[177] Comparison of different source calculations in two-nucleon channel at large quark mass	YAMAZAKI, Takeshi
18:30	[47] Sanity check for $\pi\pi$ bound states in lattice QCD with Luscher's finite volume formula	AOKI, Sinya
18:50	[54] Two-baryon systems from HAL QCD method and the mirage in the temporal correlation of the direct method	IRITANI, Takumi

**Nonzero Temperature and Density - Auditorio Manuel de Falla (17:10-19:10)**• *Conveners: Caselle, Michele*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
17:10	[29] Dual simulation of the massless lattice Schwinger model with topological term and non-zero chemical potential	GOESCHL, Daniel
17:30	[94] Accurate Simulation of the Finite Density Thirring Model	RANTAHARJU, Jarno
17:50	[198] Spin models in complex magnetic fields: a hard sign problem	RINDLISBACHER, Tobias
18:10	[233] Two-dimensional antiferromagnetic Ising model as a toy model for usual $\theta$ physics	ROYO-AMONDARAIN, Eduardo
18:30	[347] Solution of the sign problem in the Potts model at fixed baryon number	WENGER, Urs
18:50	[287] Representations of complex probabilities on groups, Gibbs sampling, and local reweighting	SALCEDO, Lorenzo Luis

**Conference Banquet - (20:30)**

Buses will depart from Palacio de Congresos at 20:00

The conference banquet will be held at La Mamunia.

# F R I D A Y - 2 3 J u n e 2 0 1 7

## **Plenary Session - VII - Auditorio Manuel de Falla (09:30-11:15)**

• *Conveners: Aoki, Sinya*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
09:30	[137] Looking Behind the Standard Model with Lattice Gauge Theory	SVETITSKY, Benjamin
10:15	[58] The determination of alphas: status and prospects	FORTE, Stefano
10:45	[107] Determination of the Strong Coupling Constant by the ALPHA Collaboration	KORZEC, Tomasz

## **Plenary Session - VIII - Auditorio Manuel de Falla (11:45-13:00)**

• *Conveners: Nishimura, Jun*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
11:45	[65] Status of the Complex Langevin Method	SEILER, Erhard
12:30	[419] Going with the (holomorphic) flow: thimbles and the sign problem	BEDAQUE, Paulo

## **IAC Meeting - (13:00-15:00)**

## **Applications Beyond QCD - Seminarios 1+2 (15:00-16:40)**

• *Conveners: Schaich, David*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
15:00	[42] Phase diagram and Chiral Magnetic Effect in Dirac Semimetals from Lattice Simulation	KOTOV, Andrey
15:20	[282] Direct detection of metal-insulator phase transitions using modified Backus-Gilbert method	ULYBYSHEV, Maksim
15:40	[88] Relaxation time of the fermions in the magnetic field	KAGIMURA, Aya
16:00	[319] Extracting the single-particle gap in Carbon nanotubes with Lattice Quantum Monte Carlo	LUU, Thomas
16:20	[80] Detecting non-equilibrium instabilities in the entanglement entropy of few-body systems	MCKENNEY, Joshua

## **Software Development - Seminario 8 (15:00-16:40)**

• *Conveners: Vaquero Avilés-Casco, Alejandro*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
15:00	[388] Developing QCD Algorithms For NVIDIA GPUs Using the QUDA Framework	CLARK, Kate
15:20	[66] A comparison of multigrid performance in QUDA and DDalphaAMG using twisted mass fermions	BACCHIO, Simone
15:40	[324] Performance Portability Strategies for Grid C++ Expression Template	LIN, Meifeng
16:00	[342] HMC, high level structures and architecture support in Grid	COSSU, Guido
16:20	[280] Status of the tmLQCD software suite on heterogenous architectures	KOSTRZEWA, Bartosz

**Physics Beyond the Standard Model - Seminarios 6+7 (15:00-16:40)**• *Conveners: Pica, Claudio*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
15:00	[235] Dynamical QCD+Axion simulation: First results	SCHIERHOLZ, Gerrit
15:20	[293] Higgs-Yukawa model on the lattice	LIN, C.-J. David
15:40	[210] SUNny gluonia: DM, gravitational waves and a cosmic selection	SONI, Amarjit
16:00	[240] Lattice Quantum Gravity and Asymptotic Safety	LAIHO, John
16:20	[free slot]	

**Theoretical Developments - Andalucía I (15:00-16:40)**• *Conveners: Gattringer, Christof*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
15:00	[202] Large $N$ scaling and factorization in $SU(N)$ Yang-Mills gauge theory	GARCÍA VERA, Miguel Francisco
15:20	[110] Generating a mass gap using Feynman diagrams in an asymptotically free theory	CHANDRASEKHARAN, Shailesh
15:40	[87] Atiyah-Patodi-Singer index theorem for domain-wall fermion Dirac operator	ONOGI, Tetsuya
16:00	[141] One-loop perturbative coupling of $SA$ and $SA_{\star}$ through the chiral overlap operator	MORIKAWA, Okuto
16:20	[362] Topological Susceptibility under Gradient Flow	MEJIA-DIAZ, Hector

**Hadron Structure - Andalucía III (15:00-16:40)**• *Conveners: Davies, Christine*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
15:00	[312] The pion electromagnetic form factor from twisted mass lattice QCD at the physical pion mass	KOSTRZEWA, Bartosz
15:20	[356] Electromagnetic pion form factor with strange quark mass reweighting $>$ in $N_f=2+1$ lattice QCD	KAKAZU, Junpei
15:40	[204] Light meson form factors at high $Q^2$ from lattice QCD	KOPONEN, Jonna
16:00	[176] Exploratory study of pion light-cone wavefunction using OPE on the lattice	MONDAL, santanu
16:20	[226] Second Order Electroweak Matrix Elements in Light Nuclei	DETMOLD, William

**Hadron Spectroscopy and Interactions - Andalucía II (15:00-16:40)**• *Conveners:*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
15:00	[418] Scattering phaseshift formulas on elongated lattices	LEE, Frank
15:20	[75] Charmonium-nucleon interactions from the time-dependent HAL QCD method	SUGIURA, Takuya
15:40	[100] Relativistic corrections to the static energy in terms of Wilson loops at weak coupling	PINEDA, Antonio
16:00	[81] Computation of hybrid static potentials in $SU(3)$ lattice gauge theory	REISINGER, Christian
16:20	[183] Charmonium resonances on the lattice	PIEMONTE, Stefano

## **Nonzero Temperature and Density - Auditorio Manuel de Falla (15:00-16:40)**

• *Conveners: Gavai, Rajiv V*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
15:00	[231] Paths to equilibrium in non-conformal collisions	ATTEMS, Maximilian
15:20	[277] Fluctuations of conserved charges from imaginary chemical potential	GUENTHER, Jana
15:40	[340] An improved estimate for the photon rate from lattice QCD - part 1	HARRIS, Tim
16:00	[353] An improved estimate for the photon rate from lattice QCD - part 2	STEINBERG, Aman
16:20	[63] Temperature dependence of bulk viscosity in SU(3)-gluodynamics	BRAGUTA, Victor

## **Applications Beyond QCD - Seminarios 1+2 (17:10-19:10)**

• *Conveners: Wipf, Andreas*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
17:10	[113] Simulation of lattice statistical models with defects: Critical Casimir Effect	PAVLOVSKY, Oleg
17:30	[159] Testing Universality at a Conformal Fixed Point	HASENFRATZ, Anna
17:50	[400] Charge creation, finite size effects, and infra-red photons in simulations of QCD plus QED	RAKOW, Paul
18:10	[193] Lattice study of continuity and finite-temperature transition in $SU(2) \times SU(N)$ Principal Chiral Model	VALGUSHEV, Semen
18:30	[free slot]	
18:50	[free slot]	

## **Software Development - Seminario 8 (17:10-19:10)**

• *Conveners: Krstic Marinkovic, Marina*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
17:10	[157] Wilson and Domainwall Kernels on Oakforest-PACS	KANAMORI, Issaku
17:30	[372] Portable LQCD Monte Carlo code using OpenACC	SILVI, Giorgio
17:50	[230] BaHaMAS: A Bash Handler to Monitor and Administrate Simulations	SCIARRA, Alessandro
18:10	[259] Modern tools for automated analysis of lattice data — A Case Study	JAY, William
18:30	[383] Automated lattice data generation	HACKETT, Daniel
18:50	[407] Nim for HPC	OSBORN, James

## **Weak Decays and Matrix Elements - Seminarios 6+7 (17:10-19:10)**

• *Conveners: Wingate, Matthew*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
17:10	[298] Setting up a tmQCD valence action for flavour physics	ROMERO JURADO, Jose Angel
17:30	[244] Weak hamiltonian Wilson Coefficients from Lattice QCD	BRUNO, Mattia
17:50	[189] $ V_{us} $ determination from inclusive strange tau decay and lattice HVP	OHKI, Hiroshi
18:10	[132] Pion decay in magnetic fields	ENDRODI, Gergely
18:30	[467] HQET parameters from ETMC lattice data at $N_f = 2+1+1$	MELIS, Aurora
18:50	[166] Dispersion relation and unphysical poles of Mobius domain-wall fermions in free field theory at finite $L_s$	TOMII, Masaaki

**Theoretical Developments - Andalucía I (17:10-19:10)**• *Conveners: Cichy, Krzysztof*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
17:10	[11] Plasmon mass scale and quantum fluctuations of classical fields on a real time lattice	PEURON, Jarkko
17:30	[146] Loop-TNR analysis of CP(1) model with theta term	KAWAUCHI, Hikaru
17:50	[192] Tensor Network study of the (1+1)-dimensional Thirring model	TAN, David Tao-Lin
18:10	[212] Application of tensor network method to two dimensional lattice $\mathcal{N}=1$ Wess-Zumino model	SAKAI, Ryo
18:30	[390] RG inspired Machine Learning for lattice field theory	MEURICE, Yannick
18:50	[468] Theta-angle, global symmetries and sign problem in compact 1+1D U(1) gauge theories	SULEJMANPASIC, Tin

**Hadron Structure - Andalucía III (17:10-19:10)**• *Conveners: Wittig, Hartmut*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
17:10	[359] Connected and leading disconnected hadronic light-by-light contribution to the muon anomalous magnetic moment with physical pion mass	BLUM, Thomas
17:30	[325] Finite volume study for muon g-2 light-by-light contribution	IZUBUCHI, Taku
17:50	[284] Exploratory lattice studies for the position-space approach to hadronic light-by-light scattering in the muon g-2	ASMUSSEN, Nils
18:10	[373] Light-by-light forward scattering amplitudes in Lattice QCD	GERARDIN, Antoine
18:30	[254] $\pi \rightarrow \pi \gamma^*$ radiative transition from lattice QCD	LESKOVEC, Luka
18:50	[free slot]	

**Hadron Spectroscopy and Interactions - Andalucía II (17:10-19:10)**• *Conveners:*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
17:10	[158] Tetraquark resonances computed with static lattice QCD potentials and scattering theory	BICUDO, Pedro
17:30	[243] Tetraquark and molecule charmonium states on the lattice	SOLOVJEVA, Olga
17:50	[248] More on heavy tetraquarks in lattice QCD at almost physical pion mass	FRANCIS, Anthony
18:10	[256] The search for beauty-fully bound tetraquarks	HUGHES, Ciaran
18:30	[118] Heavy-light tetraquarks from Lattice QCD	JUNNARKAR, Parikshit
18:50	[free slot]	

**Nonzero Temperature and Density - Auditorio Manuel de Falla (17:10-19:10)**• *Conveners: de FORCRAND, Philippe*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
17:10	[208] Restoring canonical partition function from imaginary chemical potential	GOY, Vladimir
17:30	[241] Updates on the Columbia plot and its extended/alternative versions	CUTERI, Francesca
17:50	[251] Lattice Study of QCD Phase Structure by Canonical Approach	BOYDA, Denis
18:10	[252] The QCD equation of state to $\mathcal{O}(\mu_B^6)$	HEGDE, Prasad
18:30	[274] Equation of State and Freezeout in QCD with Staggered Quarks	GUPTA, Sourendu
18:50	[380] Hadron thermodynamics from imaginary chemical potentials	PASZTOR, Attila



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## Plenary Session - IX - Auditorio Manuel de Falla (09:00-11:00)

• *Conveners: Lin, Huey-Wen*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
09:00	[464] Lattice QCD on new chips: a community summary	RAGO, Antonio
09:30	[265] Lattice QCD input for nuclear structure and reactions	DAVOUDI, Zohreh
10:15	[84] Tetraquark candidate $Z_c(3900)$ from coupled-channel scattering -- how to extract hadronic interactions?	IKEDA, Yoichi

## Plenary Session - X - Auditorio Manuel de Falla (11:30-12:30)

• *Conveners: Sachrajda, Christopher*

<i>time</i>	<i>[id] title</i>	<i>presenter</i>
11:30	[205] A precise determination of the hadronic vacuum polarization contribution to the muon anomalous magnetic moment from lattice QCD	LEHNER, Christoph
12:00	[151] Hadronic light-by-light contribution to $(g-2)_\mu$ : a dispersive approach	COLANGELO, Gilberto

## Closing Remarks - Auditorio Manuel de Falla (12:30-13:00)

# NOTES

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