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XXVI International Conference on  
Ultrarelativistic Nucleus-Nucleus Collisions  
February 5-11, 2017  
Chicago, IL

|       | Sunday<br>Feb 5                         | Monday<br>Feb 6  | Tuesday<br>Feb 7<br>Wednesday<br>Feb 8    |
|-------|---|--|---|
| 8:00  | 8:00 – 9:00<br>Student Day check-in     | 8:00 – 9:00<br>Conference check-in                                       |   |
| 9:00  | 9:00 – 13:00<br>Student Day A           | 9:00 – 11:10<br>Opening Session/<br>Experimental Preview I               | 8:30 – 10:10<br>Parallel<br>Sessions 1/5  |
| 10:00 |   |  | 10:10 – 10:40 Coffee                      |
| 11:00 |   |  | 11:10 – 11:30 Coffee                      |
| 12:00 |   |  | 10:40 – 12:20<br>Parallel<br>Sessions 2/6 |
| 13:00 | 13:00 – 15:00<br>Student Lunch Social   | 11:30 – 12:45<br>Experimental Preview II                                 | 12:20 – 14:00<br>Lunch                    |
| 14:00 |   | 12:45 – 14:00<br>Lunch   |   |
| 15:00 |   | 14:00 – 16:00<br>Plenary I: Equilibration,<br>Flow and QGP<br>Parameters | 14:00 – 16:00<br>Parallel<br>Sessions 3/7 |
| 16:00 | 15:00 – 18:30<br>Student<br>Day B       |  | 16:00 – 16:30 Coffee                      |
| 17:00 |   | 16:00 – 18:00<br>Poster session  | 16:30 – 18:30<br>Parallel<br>Sessions 4/8 |
| 18:00 | 16:00 – 19:00<br>Conference<br>Check-in |  |   |
| 19:00 |   | 18:30 – 20:30<br>Welcome Reception                                       |   |
| 20:00 |   |  |   |
| 21:00 |   |  |   |

|       | Thursday<br>Feb 9  | Friday<br>Feb 10   | Saturday<br>Feb 11   |
|-------|--|--|--|
| 8:00  |  |  |  |
| 9:00  | 9:00 – 11:00<br>Plenary Session II:<br>Collective Dynamics<br>from pp to AA  | 9:00 – 11:00<br>Plenary Session IV: Jet<br>Quenching                   | 9:00 – 10:40<br>Plenary Session VIII:<br>Future Facilities and<br>Directions |
| 10:00 |  |  | 10:40 – 11:10 Coffee   |
| 11:00 | 11:00 – 11:30 Coffee   | 11:00 – 11:30 Coffee   | 11:10 – 12:30<br>Closing Session   |
| 12:00 | 11:30 – 13:30<br>Plenary Session III:<br>Search for Critical<br>Phenomena and Chiral<br>Anomalies in Heavy-ion<br>Collisions | 11:30 – 12:30<br>Plenary Session V:<br>Electromagnetic Radiation       |  |
| 13:00 |  | 12:30 – 14:00<br>Lunch   |  |
| 14:00 | Free<br>Afternoon  | 14:00 – 16:00<br>Plenary Session VI:<br>Heavy Flavors and<br>Quarkonia |  |
| 15:00 |  |  |  |
| 16:00 |  | 15:00 – 18:00<br>IAC<br>Meeting  | 16:00 – 16:30 Coffee   |
| 17:00 |  | 16:30 – 18:30<br>Plenary Session VII:<br>Other Recent<br>Developments  |  |
| 18:00 |  |  |  |
| 19:00 | 18:00 – 19:30<br>Public Lecture  | 19:00 – 21:00<br>Conference Banquet                                    |  |
| 20:00 |  |  |  |
| 21:00 |  |  |  |

## Sunday 5 February 2017

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### Student's Day A (Chair A. Sickles) – Regency A (09:00-13:00)

| <i>time</i> | <i>title</i>              | <i>presenter</i> |
|-------------|---------------------------|------------------|
| 09:00       | Dynamics in phases of QCD | Scott Pratt      |
| 10:15       | Lattice QCD               | Alexei Bazavov   |

### Coffee Break (11:00 – 11:30)

|       |                                    |                 |
|-------|------------------------------------|-----------------|
| 11:30 | Probes of anomalous chiral effects | Sergei Voloshin |
| 12:15 | Electroweak probes                 | Peter Steinberg |

### Student Lunch (13:00 – 15:00)

### Student's Day B (Chair P. Sorensen) – Regency A (15:00-18:30)

| <i>time</i> | <i>title</i>                            | <i>presenter</i> |
|-------------|---|------------------|
| 15:00       | Jets in heavy ion collisions experiment | Gunther Roland   |
| 15:45       | Jets in heavy ion collisions: theory    | Sangyong Jeon    |

### Coffee Break (16:30 – 17:00)

|       |                               |                  |
|-------|-------------------------------|------------------|
| 17:00 | Electron Ion Collider physics | Christine Aidala |
| 17:45 | Q&A discussion session        |                  |

## Monday 6 February 2017

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### Opening Session (Chair U. Heinz) – Regency A/B (09:00-10:00)

| <i>time</i> | <i>title</i>   | <i>presenter</i> |
|-------------|--|------------------|
| 9:00        | Welcome addresses  |                  |
| 09:20       | Status of the field and key open questions before QM2017 | Jürgen Schukraft |

### Plenary Session A: Experimental Preview Talks I (Chair J. Velkovska)

#### Regency A/B (10:00-11:10)

| <i>time</i> | <i>title</i>                    | <i>presenter</i>    |
|-------------|---------------------------------|---------------------|
| 10:00       | Experimental highlights: STAR   | Alexander Schmah    |
| 10:20       | Experimental highlights: PHENIX | Darren McGlinchey   |
| 10:40       | Experimental highlights: HADES  | Manuel Lorenz       |
| 10:55       | Experimental highlights: NA61   | Antoni Aduszkiewicz |

### Coffee Break (11:10 – 11:30)

## Monday 6 February 2017

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### Plenary Session B: Experimental Preview Talks II (Chair B. Wyslouch)

#### Regency A/B (11:30-12:45)

| <i>time</i> | <i>title</i>                   | <i>presenter</i> |
|-------------|--------------------------------|------------------|
| 11:30       | Experimental highlights: ALICE | Anthony Timmins  |
| 11:50       | Experimental highlights: ATLAS | Jiangyong Jia    |
| 12:10       | Experimental highlights: CMS   | Yen-Jie Lee      |
| 12:30       | Experimental highlights: LHCb  | Patrick Robbe    |

### Lunch (12:45 - 14:00)

### Plenary Session I: Equilibration, flow and QGP (Chair: B. Muller)

#### Regency A/B (14:00-16:00)

| <i>time</i> | <i>title</i>  | <i>presenter</i>    |
|-------------|---|---------------------|
| 14:00       | Collective flow from pp to AA                                 | Wei Li              |
| 14:30       | Determination of QGP parameters from global Bayesian analysis | Steffen Bass        |
| 15:00       | Equilibration and hydrodynamics at strong and weak coupling   | Wilke van der Schee |
| 15:30       | Jet energy loss and equilibration                             | Korinna Zapp        |

### Poster Session – Regency C/D, International Suites (16:00-18:00)

### Reception – Art Institute of Chicago (18:30 - 21:00)

## Tuesday 7 February 2017

### Parallel Sessions 1 (8:30 - 10:10)

#### Initial State Physics and Approach to Equilibrium (I) Chair: R. Venugopalan Regency A

#### QCD in Small Systems (I) Chair: P. Braun-Munzinger Regency B

|      |  |  |
|------|--|--|
| 8:30 | Evidence of nuclear gluon effects in $\gamma$ -Pb interactions with CMS  | Event activity-dependence of jet production in p-Pb collisions at 5.02 TeV measured with semi-inclusive hadron+jet correlations by ALICE |
|      | TAKAKI, Daniel (CMS)   | KRIZEK, Filip (ALICE)  |
| 8:50 | Photoproduction of heavy vector mesons in ultra-peripheral Pb-Pb collisions                                    | New insights of multi-particle azimuthal correlations via differential studies in high-multiplicity pPb collisions with CMS              |
|      | KRYSHEN, Evgeny (ALICE)  | GUILBAUD, Maxime (CMS)   |
| 9:10 | Measurements of multi-jet production in pp, p+Pb and ultra-peripheral Pb+Pb collisions with the ATLAS detector | Multiplicity dependence of jet-like two-particle correlations in pp collisions at 7 and 13 TeV with ALICE                                |
|      | ANGERAMI, Aaron (ATLAS)  | LAKOMOV, Igor (ALICE)  |
| 9:30 | Electromagnetic processes in ultra-peripheral Pb+Pb collisions with ATLAS                                      | Measurement of J/Psi production as a function of event multiplicity in pp collisions at 13TeV with ALICE                                 |
|      | DYNDAL, Mateusz (ATLAS)  | WEBER, Steffen (ALICE)   |
| 9:50 | 3-D Glasma initial state from small-x evolution  | Multiplicity dependence of identified particle production in proton-proton collisions with ALICE   |
|      | SCHLICHTING, Soeren  | VISLAVICIUS, Vytautas (ALICE)  |

Coffee Break (10:10 – 10:40)

## Tuesday 7 February 2017

### Parallel Sessions 1 (8:30 - 10:10)

#### Electromagnetic Probes (I) Chair: S. Jeon Regency C

#### Jets and High $p_T$ Hadrons (I) Chair: D. Morrison Regency D

|   |  |
|---|--|
| Dilepton production in p+p, Au+Au collisions at 200 GeV and U+U collisions at 193 GeV           | Study of cold and hot nuclear matter effects on jets with direct photon-triggered correlations from PHENIX |
| BRANDENBURG, James (STAR)   | OSBORN, Joseph (PHENIX)  |
| Low-mass electrons pairs from 1.23A GeV Au+Au Collisions with HADES                             | Jet measurements with neutral and di-jet triggers in central Au+Au collisions at 200 GeV with STAR         |
| GALATYUK, Tetyana (HADES)   | SAHOO, Nihar (STAR)  |
| Measurements of the dielectron continuum in pp, p-Pb and Pb-Pb collisions with ALICE at the LHC | Jet structure studies using jet-hadron correlations in PbPb and pp collisions at 5.02 TeV with CMS         |
| DOCE, Oton (ALICE)  | TRAUGER, Hallie (CMS)  |
| Neutral particle-hadron correlation measurements with the ALICE experiment at the LHC           | Jet-induced medium excitation in gamma-hadron and hadron-hadron correlations                               |
| VAUTHIER, Astrid (ALICE)  | CHEN, Wei  |
| Bulk viscous effects on flow and dilepton radiation in a hybrid approach                        | Extracting $\hat{q}$ in event-by-event hydrodynamics and the centrality/energy puzzle                      |
| VUJANOVIC, Gojko  | CASAS, Carlota   |

Coffee Break (10:10 – 10:40)

## Tuesday 7 February 2017

### Parallel Sessions 2 (10:40 - 12:20)

| <b>Initial State Physics and Approach to Equilibrium (II)</b><br>Chair: S. Gupta<br>Regency A |   | <b>QCD in Small Systems (II)</b><br>Chair: F. Wang<br>Regency B  |  |
|---|---|--|--|
| 10:40   | Transverse-momentum-dependent gluon distributions and their evolution towards small $x$                     | PHENIX results on longitudinal flow dynamics and event plane decorrelation in d+Au collisions from 19.6 to 200 GeV |  |
|   | PETRESKA, Elena   | BELMONT, Ron (PHENIX)  |  |
| 11:00   | Initial conditions for hydrodynamics from weakly coupled pre-equilibrium evolution                          | Charge asymmetry dependence of elliptic and triangular flow in pPb and PbPb collisions with CMS                    |  |
|   | MAZELIAUSKAS, Aleksas   | PARK, Sang (CMS)   |  |
| 11:20   | Characterization of the initial state and QGP medium from a combined Bayesian analysis of RHIC and LHC data | Measurement of two- and multi-particle azimuthal correlations in small collision systems with the ATLAS detector   |  |
|   | BERNHARD, Jonah   | TRZUPEK, Adam (ATLAS)  |  |
| 11:40   | Particle production in proton-nucleus collisions beyond leading order                                       | PHENIX results on elliptic and triangular flow at mid-rapidity in d+Au collisions from 19.6 to 200 GeV             |  |
|   | IANCU, Edmond   | VELKOVSKA, Julia (PHENIX)  |  |
| 12:00   | System-size dependence of the charged-particle pseudorapidity density distribution at 5.02 TeV with ALICE   | Multiplicity fluctuations and collective flow in small colliding systems   |  |
|   | CHRISTENSEN, Christian (ALICE)  | KAWAGUCHI, Koji  |  |

Lunch (12:20 - 14:00)

## Tuesday 7 February 2017

### Parallel Sessions 2 (10:40 - 12:20)

| <b>Electromagnetic Probes (II)</b><br>Chair: H. Hamagaki<br>Regency C |   | <b>Jets and High <math>p_T</math> Hadrons (II)</b><br>Chair: U. Wiedemann<br>Regency D                                       |  |
|---|---|--|--|
|   | Direct photon measurements in pp and Pb-Pb collisions with ALICE  | Angular structure of jet quenching within a hybrid strong/weak coupling model  |  |
|   | GERMAIN, Marie (ALICE)  | RAJAGOPAL, Krishna   |  |
|   | PHENIX measurements of low momentum direct photons from large ion collisions as a function of beam energy and system size | Probing transverse momentum broadening via dihadron and hadron-jet angular correlations in relativistic heavy-ion collisions |  |
|   | SHARMA, Deepali (PHENIX)  | QIN, Guang-you   |  |
|   | Photon emission at hadronization: possible resolution to the direct photon puzzle   | Jet-hadron and di-hadron correlations in pp and Pb-Pb with studies relative to the event plane at the LHC with ALICE         |  |
|   | ITAKURA, Kazunori   | MAZER, Joel (ALICE)  |  |
|   | How brightly does the Glasma shine? Photon production off-equilibrium and the $v_2$ puzzle                                | Jet fragmentation in p+p, p+Pb and Pb+Pb at ATLAS  |  |
|   | TANJI, Naoto  | SLOVAK, Radim (ATLAS)  |  |
|   | Virtual photon polarization in ultrarelativistic heavy-ion collisions   | Holographic jet shapes and their evolution in strongly coupled plasma  |  |
|   | BAYM, Gordon  | BREWER, Jasmine  |  |

Lunch (12:20 - 14:00)

## Tuesday 7 February 2017

### Parallel Sessions 3 (14:00 - 16:00)

| QCD at High Temperature<br>Chair: C. Ratti<br>Regency A |  | CME, Vorticity and Spin Polarization (I)<br>Chair: S. Voloshin<br>Regency B  |  |
|---|--|--|--|
| 14:00   | O(g) NLO effects in transport coefficients   | Using event shape engineering to investigate the chiral magnetic effect in Pb-Pb collisions at 2.76 TeV  |  |
|   | GHIGLIERI, Jacopo  | DOBRIN, Alexandru (ALICE)  |  |
| 14:20   | An effective field theory for QCD thermodynamics   | Chiral magnetic effect in isobar collisions  |  |
|   | GUPTA, Sourendu  | HUANG, Xu-guang  |  |
| 14:40   | The QCD equation of state at finite density from analytical continuation                                   | Disentangling flow and signals of chiral magnetic effect in U+U and Au+Au collisions   |  |
|   | GÜNTHER, Jana  | TRIBEDY, Prithwish (STAR)  |  |
| 15:00   | High statistics study of in-medium S- and P-wave quarkonium states in lattice Non-relativistic QCD         | Observation of charge-dependent azimuthal correlations in pPb collisions with CMS and its implication for the search of the Chiral Magnetic Effect |  |
|   | ROTHKOPF, Alexander  | TU, Zhoudunming (CMS)  |  |
| 15:20   | The QCD Equation of State and critical end-point estimates at 6 <sup>th</sup> order in chemical potentials | Quantifying the chiral magnetic effect from anomalous viscous fluid dynamics   |  |
|   | SHARMA, Sayantan   | SHI, Shuzhe  |  |
| 15:40   | Lattice QCD thermodynamics up to the perturbative regime   | Chiral magnetic effect and anomalous transport from real-time lattice simulations  |  |
|   | PASZTOR, Attila  | MUELLER, Niklas  |  |

### Coffee Break (16:00 – 16:30)

## Tuesday 7 February 2017

### Parallel Sessions 3 (14:00 - 16:00)

| Quarkonia (I)<br>Chair: C. Aidala<br>Regency C |  | Jets and High p <sub>T</sub> Hadrons (III)<br>Chair: J. Putschke<br>Regency D                               |  |
|--|--|---|--|
|  | Measurements of charmonium production in p+p, p+Au, and Au+Au collisions at 200 GeV with the STAR experiment             | Jet substructure through splitting functions and mass in pp and PbPb collisions at 5.02 TeV with CMS        |  |
|  | TODOROKI, Takahito (STAR)  | CHEN, Yi (CMS)  |  |
|  | ALICE measurement of the J/ψ nuclear modification factor R <sub>AA</sub> at mid-rapidity in Pb-Pb collisions at 5.02 TeV | STAR measurements of the shared momentum fraction z <sub>g</sub> using jet reconstruction in p+p and Au+Au  |  |
|  | JIMENEZ, Tonatiuh (ALICE)  | KAUDER, Kolja (STAR)  |  |
|  | Ψ(2S) and J/ψ modification in pPb and PbPb collisions at 5.02 TeV with CMS   | The origin of the modification of the z <sub>g</sub> distribution in AA collisions                          |  |
|  | BLANCO, Javier (CMS)   | MILHANO, Guilherme  |  |
|  | Measurement of charmonia production in heavy-ion collisions with the ATLAS detector                                      | Measuring medium-induced gluons via jet grooming  |  |
|  | LOPEZ, Jorge (ATLAS)   | TYWONIUK, Konrad  |  |
|  | Measurement of charmonium production at forward rapidity in Pb-Pb collisions at 5.02 TeV with ALICE                      | Inclusive jets and jet substructure in 2.76 TeV and 5.02 TeV pp and PbPb collisions with the ATLAS detector |  |
|  | TARHINI, Mohamad (ALICE)   | SPOUSTA, Martin (ATLAS)   |  |
|  | Lattice calculations of the heavy quark potential at non-zero temperature  | Exploring jet sub-structure with jet shapes in ALICE  |  |
|  | PETRECKZY, Peter   | CAFFARRI, Davide (ALICE)  |  |

### Coffee Break (16:00 – 16:30)

## Tuesday 7 February 2017

### Parallel Sessions 4 (16:30 - 18:30)

| Baryon-Rich QCD Matter and Astrophysics (I)<br>Chair: P. Senger<br>Regency A |   | CME, Vorticity and Spin Polarization (II)<br>Chair: A. Sorin<br>Regency B   |  |
|--|---|---|--|
| 16:30  | Phase transitions in dense matter<br><br>DEXHEIMER, Veronica  | Towards measurements of chiral magnetic (vortical) effect using identified particles from STAR<br><br>WEN, Liwen (STAR) |  |
| 16:50  | Revealing the collision energy dependence of $\eta$ 's in RHIC-BES Au+Au collisions using Bayesian statistics<br><br>AUVINEN, Jussi | Global polarization of Lambda hyperons in Au+Au collisions at RHIC BES<br><br>UPSAL, Isaac (STAR)                       |  |
| 17:10  | Beam energy dependence of deuteron and anti-deuteron production in Au+Au collisions at RHIC<br><br>YU, Ning (STAR)                  | Vorticity in the QGP liquid and Lambda polarization at the RHIC Beam Energy Scan<br><br>KARPENKO, Iurii                 |  |
| 17:30  | Rapidity correlations in the RHIC Beam Energy Scan<br><br>JOWZAEI, Sedigheh (STAR)  | Charge redistribution from novel magneto-vorticity coupling in anomalous hydrodynamics<br><br>HATTORI, Koichi           |  |
| 17:50  | Hybrid approach to relativistic heavy-ion collisions at the RHIC BES energies<br><br>SHEN, Chun                                     | Lambda polarization and spin correlations in a vortical fluid<br><br>WANG, Qun  |  |
| 18:10  | The STAR Beam Energy Scan phase II physics and upgrades<br><br>YANG, Chi (STAR)   | Chiral vortical and magnetic effects in anomalous hydrodynamics<br><br>GUO, Xingyu                                      |  |

## Tuesday 7 February 2017

### Parallel Sessions 4 (16:30 - 18:30)

| Quarkonia (II)<br>Chair: Y. Akiba<br>Regency C |  | Open Heavy Flavors (I)<br>Chair: E. Bruna<br>Regency D  |  |
|--|--|---|--|
|  | Bottomonium measurements at forward rapidity in Pb-Pb and p-Pb collisions with ALICE at LHC<br><br>DAS, Indranil (ALICE)                       | D meson nuclear modification factor and $v_n$ harmonics in PbPb collisions at 5.02 TeV with CMS<br><br>SUN, Jian (CMS)  |  |
|  | Bottomonia results from the LHC Run 1 and 2 with CMS<br><br>FLORES, Chad (CMS)   | D-meson nuclear modification factor and elliptic flow measurements in Pb-Pb collisions at 5.02 TeV with ALICE at LHC<br><br>BARBANO, Anastasia (ALICE)            |  |
|  | Heavy flavour production in proton-lead and lead-lead collisions with LHCb<br><br>WINN, Michael (LHCb)   | Centrality dependence of D0 elliptic and triangular flow in Au+Au collisions at 200 GeV at STAR<br><br>HE, Liang (STAR)   |  |
|  | Quarkonium spectral functions and heavy quark diffusion of charm and bottom quarks from lattice QCD at finite temperature<br><br>OHNO, Hiroshi | Measurements of $\Lambda_c^+$ and $D_s^+$ productions in Au+Au collisions at 200 GeV from STAR<br><br>ZHOU, Long (STAR)   |  |
|  | Upsilon measurements in p+p, p+Au and Au+Au collisions at 200 GeV with the STAR experiment<br><br>YE, Zaochen (STAR)                           | New high resolution measurements of open and hidden charm production in proton-nucleus collisions at 110 GeV with the LHCb detector<br><br>MAURICE, Emilie (LHCb) |  |
|  | Bottomonia suppression in heavy-ion collisions<br><br>STRICKLAND, Michael  | Heavy vs. light flavor jet quenching, flow, thermalization and D-hadron correlations from RHIC to LHC energies<br><br>CAO, Shanshan                               |  |

## Wednesday 8 February 2017

### Parallel Sessions 5 (8:30 - 10:10)

| <b>Collective Dynamics (I)</b><br><b>Chair: M. Strickland</b><br><b>Regency A</b> |  | <b>Initial State Physics and</b><br><b>Approach to Equilibrium (III)</b><br><b>Chair: Z. Xu</b><br><b>Regency B</b> |  |
|---|--|---|--|
| 8:30  | Probing non-linearity of higher harmonic flow in 2.76 and 5.02 TeV Pb-Pb collisions                                    | Measurement of W and Z boson production in 5 TeV pp, p+Pb and Pb+Pb collisions with the ATLAS detector              |  |
|   | ZHOU, You (ALICE)  | CITRON, Zvi (ATLAS)   |  |
| 8:50  | Mixed higher-order flow harmonics and nonlinear response coefficients in PbPb collisions at 2.76 and 5.02 TeV with CMS | Electroweak boson production measurements in p-Pb and Pb-Pb collisions at 5.02 TeV with ALICE                       |  |
|   | TUO, Shengquan (CMS)   | STOCCO, Diego (ALICE)   |  |
| 9:10  | Anisotropic flow of inclusive and identified particles in Pb-Pb collisions at 5.02 TeV                                 | Di-hadron back-to-back correlations in p+p and p+Au collisions at STAR  |  |
|   | BERTENS, Redmer (ALICE)  | OGAWA, Akio (STAR)  |  |
| 9:30  | Hydrodynamic predictions for mixed harmonic correlations in 200 GeV Au+Au collisions                                   | Latest results from the EbyE NLO EKRT model   |  |
|   | GARDIM, Fernando   | ESKOLA, Kari  |  |
| 9:50  | A detailed study and synthesis of flow observables in the IP-Glasma + MUSIC + UrQMD framework                          | Proton structure fluctuations: constraints from diffraction and applications to p+A collisions                      |  |
|   | McDONALD, Scott  | MÄNTYSAARI, Heikki  |  |

**Coffee Break (10:10 – 10:40)**

## Wednesday 8 February 2017

### Parallel Sessions 5 (8:30 - 10:10)

| <b>New Theoretical Developments (I)</b><br><b>Chair: M. Lombardo</b><br><b>Regency C</b> |   | <b>Jets and High <math>p_T</math> Hadrons (IV)</b><br><b>Chair: P. Jacobs</b><br><b>Regency D</b> |  |
|--|---|---|--|
|  | New quantum effects in relativistic magnetohydrodynamics                      | Studies of photon-jet correlations in 5.02 TeV Pb+Pb and pp collisions with ATLAS                 |  |
|  | KHARZEEV, Dmitri  | STEINBERG, Peter (ATLAS)  |  |
|  | Tetraquarks and the phase diagram of QCD                                      | The x and scale dependence of the transport coefficient $\hat{q}$                                 |  |
|  | PISARSKI, Robert  | KUMAR, Amit   |  |
|  | The problem of overlapping formation times                                    | Jet energy loss in boson-jet events in PbPb collisions at 5.02 TeV with CMS                       |  |
|  | ARNOLD, Peter   | BI, Ran (CMS)   |  |
|  | Going with the flow: a new solution to the sign problem                       | Vector boson-tagged jet production in heavy ion reactions at the LHC                              |  |
|  | BASAR, Gökce  | XING, Hongxi  |  |
|  | Classical electromagnetic fields from quantum sources in heavy-ion collisions | Design, status and schedule of the sPHENIX experiment at RHIC                                     |  |
|  | PEROUTKA, Balthazar   | CONNORS, Megan (sPHENIX)  |  |

**Coffee Break (10:10 – 10:40)**



## Wednesday 8 February 2017

### Parallel Sessions 6 (10:40 - 12:20)

| <b>QCD in Small Systems (III)</b><br><b>Chair: A. Milov</b><br><b>Regency A</b> |  | <b>Correlations and Fluctuations (I)</b><br><b>Chair: W. Xie</b><br><b>Regency B</b>                                     |  |
|---|--|--|--|
| 10:40   | Bayesian analysis of flow in small and large QGP droplets: the role of subnucleonic structure          | Investigations of anisotropic collectivity using multi-particle correlations in pp, p-Pb and Pb-Pb collisions with ALICE |  |
|   | MORELAND, Scott  | GAJDOSOVA, Katarina (ALICE)  |  |
| 11:00   | Femtoscopy with identified charged pions in proton-lead collisions at 5.02 TeV with the ATLAS detector | Dynamical critical fluctuations near the QCD critical point  |  |
|   | CLARK, Michael (ATLAS)   | SONG, Huichao  |  |
| 11:20   | PHENIX results on collective behavior in small systems from geometry-controlled experiments at 200 GeV | Rapidity dependent flow fluctuations at RHIC   |  |
|   | XU, Qiao (PHENIX)  | LUZUM, Matt  |  |
| 11:40   | Evidence for collective phenomena in pp collisions with CMS  | Hydrodynamic fluctuations in Pb+Pb collisions at LHC   |  |
|   | CHEN, Zhenyu (CMS)   | SAKAI, Azumi   |  |
| 12:00   | Is pQCD energy loss in trouble?  | Jet evolution in a dense medium: event-by-event fluctuations and multi-particle correlations                             |  |
|   | KOLBE, Isobel  | ESCOBEDO, Miguel   |  |

**Lunch (12:20 - 14:00)**

## Wednesday 8 February 2017

### Parallel Sessions 6 (10:40 - 12:20)

| <b>New Theoretical Developments (II)</b><br><b>Chair: K. Eskola</b><br><b>Regency C</b> |  | <b>Jets and High <math>p_T</math> Hadrons (V)</b><br><b>Chair: C. Salgado</b><br><b>Regency D</b>                                       |  |
|---|--|---|--|
|   | Relaxation times of shear and bulk viscosities from Kubo formulas                                  | Studying parton energy loss using meson production in large collision systems from PHENIX   |  |
|   | CZAJKA, Alina  | ZHARKO, Sergei (PHENIX)   |  |
|   | Path-integral Monte Carlo study of the magnetic component of Quark-Gluon Plasma at and above $T_c$ | Systematic study of highly asymmetric systems using $\pi^0$ production at PHENIX  |  |
|   | RAMAMURTI, Adith   | NOVITZKY, Norbert (PHENIX)  |  |
|   | A kinetic regime of hydrodynamic fluctuations and long time tails for a Bjorken expansion          | Investigating the role of coherence effects on jet quenching in Pb-Pb collisions at 2.76 TeV using the Nsubjettiness jet shape by ALICE |  |
|   | AKAMATSU, Yukinao  | ZARDOSHTI, Nima (ALICE)   |  |
|   | Hydrodynamics with critical slowing down   | Probing jet decoherence in heavy ion collisions   |  |
|   | STEPHANOV, Misha   | MEHTAR-TANI, Yacine   |  |
|   | Topology and axion's properties from lattice QCD with dynamical charm                              | Effect of hydrodynamic response in QGP on full jets   |  |
|   | LOMBARDO, Maria  | TACHIBANA, Yasuki   |  |

**Lunch (12:20 - 14:00)**

## Wednesday 8 February 2017

### Parallel Sessions 7 (14:00 - 16:00)

| <b>Baryon-Rich QCD Matter and Astrophysics (II)</b><br><b>Chair: Y.-G. Ma</b><br><b>Regency A</b> |   | <b>Correlations and Fluctuations (II)</b><br><b>Chair: B. Wosiek</b><br><b>Regency B</b>  |  |
|---|---|---|--|
| <b>14:00</b>  | Strangeness production in 1.23 A GeV Au+Au collisions with HADES  | Net baryon fluctuations from ALICE at the LHC   |  |
|   | SCHULDES, Heidi (HADES)   | RUSTAMOV, Anar (ALICE)  |  |
| <b>14:20</b>  | Comparison of STAR Au + Au 4.5 GeV fixed-target and AGS Au + Au fixed-target spectra, strangeness, flow and HBT | Measurement of the cumulant of net-proton multiplicity distribution in Au+Au collisions at 7.7-200 GeV from the STAR experiment |  |
|   | MEEHAN, Kathryn (STAR)  | ESHA, Roli (STAR)   |  |
| <b>14:40</b>  | Collective flow measurements with HADES in Au+Au collisions at 1.23A GeV  | Conserved charge fluctuations at vanishing and non-vanishing baryon chemical potential from lattice QCD                         |  |
|   | BLUME, Christoph (HADES)  | KARSCH, Frithjof  |  |
| <b>15:00</b>  | Effects of enhanced bulk viscosity near the QCD critical point  | Cumulants and correlation functions vs. the QCD phase diagram   |  |
|   | MONNAI, Akihiko   | BZDAK, Adam   |  |
| <b>15:20</b>  | Universal off-equilibrium scaling of critical cumulants in the QCD phase diagram                                | Azimuthally differential pion femtoscopy relative to the second and third harmonic in Pb-Pb 2.76 TeV collisions from ALICE      |  |
|   | YIN, Yi   | SALEH, Mohammad (ALICE)   |  |
| <b>15:40</b>  | Fluid dynamical fluctuations of net-baryon number near the QCD critical point                                   | Measurement of forward-backward multiplicity correlations in pp, pPb and PbPb collisions with ATLAS                             |  |
|   | NAHRGANG, Marlene   | ZHOU, Mingliang (ATLAS)   |  |

**Coffee Break (16:00 – 16:30)**

## Wednesday 8 February 2017

### Parallel Sessions 7 (14:00 - 16:00)

| <b>Collective Dynamics (II)</b><br><b>Chair: F. Grassi</b><br><b>Regency C</b> |  | <b>Open Heavy Flavors (II)</b><br><b>Chair: A. Mischke</b><br><b>Regency D</b>  |  |
|--|--|---|--|
|  | Azimuthal anisotropies at very high $p_T$ from two- and multi-particle correlations in PbPb collision at 5.02 TeV with CMS               | Measurements of open bottom and charm hadron production through multiple decay channels in p+p, p+Au and Au+Au collisions with the STAR experiment                    |  |
|  | WANG, Quan (CMS)   | OH, Kunsu (STAR)  |  |
|  | Measurement of the width and skewness of elliptic flow fluctuations in PbPb collisions at 5.02 TeV with CMS                              | Measurements of the nuclear modification factor and elliptic flow of leptons from heavy-flavour hadron decays in Pb-Pb collisions at 2.76 TeV and 5.02 TeV with ALICE |  |
|  | CASTLE, James (CMS)  | GODOY, Denise (ALICE)   |  |
|  | Measurement of the transverse and longitudinal dynamics of collective flow in 2.76 and 5.02 TeV Pb+Pb collisions with the ATLAS detector | Studies of heavy flavored jets with CMS   |  |
|  | MOHAPATRA, Soumya (ATLAS)  | JUNG, Kurt (CMS)  |  |
|  | PHENIX results on charged-hadron azimuthal anisotropies in Au+Au collisions at center-of-mass energies from 39 to 200 GeV                | Measurement of the suppression and azimuthal anisotropy of heavy flavor muons in lead-lead collisions at 2.76TeV with the ATLAS detector                              |  |
|  | SHIMOMURA, Maya (PHENIX)   | COLE, Brian (ATLAS)   |  |
|  | Choice of moment and derivation of anisotropic dissipative fluid dynamics  | PHENIX measurements of single electrons from charm and bottom decays at midrapidity in Au+Au collisions   |  |
|  | NIEMI, Harri   | NAGASHIMA, Kazuya (PHENIX)  |  |
|  | Anisotropic hydrodynamics for Gubser flow  | Jet quenching in a semi-quark-gluon-monopole plasma: light and heavy flavor $R_{AA}$ & $v_2$ at RHIC&LHC  |  |
|  | MARTINEZ, Mauricio   | LIAO, Jinfeng   |  |

**Coffee Break (16:00 – 16:30)**

## Wednesday 8 February 2017

### Parallel Sessions 8 (16:30 - 18:30)

| Baryon-Rich QCD Matter and Astrophysics (III)<br>Chair: G. Odyniec<br>Regency A |  | Future Experimental Facilities, Upgrades, and Instrumentation<br>Chair: J. Nagle<br>Regency B |  |
|---|--|---|--|
| <b>16:30</b>  | Fluctuations of conserved charges at zero and finite density<br><br>BORSANYI, Szabolcs                                     | Feasibility study of heavy-ion collision physics at NICA JINR<br><br>KEKELIDZE, Vladimir      |  |
| <b>16:50</b>  | Evolution of critical fluctuations in a heavy-ion collision scenario<br><br>HEROLD, Christoph                              | Heavy ions at the Future Circular Collider<br><br>D'ENTERRIA, David                           |  |
| <b>17:10</b>  | Higher moments of e-by-e proton-multiplicity fluctuations in Au+Au collisions at 1.23A GeV<br><br>HOLZMANN, Romain (HADES) | QCD matter physics at the future FAIR facility in Germany<br><br>SENGER, Peter                |  |
| <b>17:30</b>  | Phenomenological QCD equations of state for neutron star mergers and supernovae<br><br>KOJO, Toru                          | Study of high baryon density QCD matter at J-PARC-HI<br><br>SAKAGUCHI, Takao                  |  |
| <b>17:50</b>  | The state-of-the-art perturbative EoS at all temperatures and chemical potentials<br><br>KURKELA, Aleksii                  | The ALICE TPC Upgrade Project<br><br>MAJKA, Richard (ALICE)                                   |  |
| <b>18:10</b>  | Evidence for chiral symmetry restoration in heavy-ion collisions<br><br>MOREAU, Pierre                                     | The new Inner Tracking System of the ALICE experiment<br><br>MARTINENGO, Paolo (ALICE)        |  |

## Wednesday 8 February 2017

### Parallel Sessions 8 (16:30 - 18:30)

| Collective Dynamics (III)<br>Chair: J. Harris<br>Regency C |  | Open Heavy Flavors (III)<br>Chair: R. Arnaldi<br>Regency D   |  |
|--|--|--|--|
|  | The onset of fluid-dynamical behavior in relativistic kinetic theory<br><br>NORONHA, Jorge                               | Nuclear modification of B mesons in Collisions at 200 GeV measured through the $B \rightarrow J/\psi$ decay by the PHENIX Experiment<br><br>SILVA, Cesar (PHENIX)      |  |
|  | Production of identified and unidentified charged hadrons in Pb-Pb collisions at 5.02 TeV<br><br>JACAZIO, Nicolo (ALICE) | Open beauty production and modifications in PbPb collisions at 5.02 TeV with CMS<br><br>WANG, Ta-Wei (CMS)   |  |
|  | Phi meson production in Pb-Pb collisions at 5.02 TeV with ALICE at the LHC<br><br>CASULA, Ester (ALICE)                  | PHENIX measurements of open and hidden heavy flavor in p+p, p+Al, and p/d/ <sup>3</sup> He+Au collisions across a wide range of rapidity<br><br>LIM, Sanghoon (PHENIX) |  |
|  | Phenomenological constraints on the bulk viscosity of QCD<br><br>DENICOL, Gabriel  | Heavy-flavor $R_{AA}$ and $v_n$ in event-by-event viscous relativistic hydrodynamics<br><br>PRADO, Caio  |  |
|  | Optimized fluid dynamics for heavy ion collisions<br><br>BAZOW, Dennis   | Data-driven analysis of the temperature and momentum dependence of the heavy-quark transport coefficient<br><br>XU, Yingru   |  |
|  | Do nuclear collisions create a locally equilibrated quark-gluon plasma?<br><br>ROMATSCHKE, Paul                          | Global view on coupled dynamics of heavy and light flavor observables from EPOSHQ<br><br>GOSSIAUX, Pol   |  |

## Thursday 9 February 2017

### Plenary Session II: Collective dynamics from pp to AA (Chair: F. Antinori) Regency A/B (9:00-11:00)

| <i>time</i> | <i>title</i>                                    | <i>presenter</i>   |
|-------------|---|--------------------|
| 09:00       | Hydrodynamic modeling from pp to AA             | Li Yan             |
| 09:30       | Collective behavior in small systems            | Alice Ohlson       |
| 10:00       | Origins of collective behavior in small systems | Björn Schenke      |
| 10:30       | Hard processes in small systems                 | Dennis Perepelitsa |

### Coffee Break (11:00 – 11:30)

### Plenary Session III: Search for Critical Phenomena and Chiral Anomalies in Heavy-ion Collisions (Chair: N. Xu)

#### Regency A/B (11:30-13:30)

| <i>time</i> | <i>title</i>   | <i>presenter</i> |
|-------------|--|------------------|
| 11:30       | Search for critical behavior – status and future                           | Helen Caines     |
| 12:00       | Search for chiral anomaly effects – status and future                      | Paul Sorensen    |
| 12:30       | Lattice QCD results on soft and hard probes of strongly interacting matter | Olaf Kaczmarek   |
| 13:00       | Beam energy scan theory: status and open questions                         | Hannah Petersen  |

### Free Afternoon (13:30-18:00)

### Meeting of the International Advisory Committee Water Tower room (Bronze level) (15:00-18:00)

#### Public Lecture

#### Regency A/B (18:00-19:30)

| <i>time</i> | <i>title</i>              | <i>presenter</i>       |
|-------------|---------------------------|------------------------|
| 18:00       | From quarks to the cosmos | Edward W. (Rocky) Kolb |

## Friday 10 February 2017

### Plenary Session IV: Jet Quenching (Chair: M. van Leeuwen) Regency A/B (09:00 - 11:00)

| <i>time</i> | <i>title</i>  | <i>presenter</i>          |
|-------------|---|---------------------------|
| 09:00       | Medium modification of jet production (RHIC + LHC)                  | Leticia Cunqueiro         |
| 09:30       | Medium modification of jet structure (RHIC + LHC)                   | Marta Verweij             |
| 10:00       | Jet modifications in event-by-event hydrodynamically evolving media | Jacquelyn Noronha-Hostler |
| 10:30       | Jet quenching with strong coupling                                  | Daniel Pablos             |

### Coffee Break (11:00 - 11:30)

### Plenary Session V: Electromagnetic radiation (Chair: C. Gale) Regency A/B (11:30 - 12:30)

| <i>time</i> | <i>title</i>   | <i>presenter</i>     |
|-------------|--|----------------------|
| 11:30       | Photon and dilepton observables: experimental overview | Sarah Campbell       |
| 12:00       | Photon and dilepton flow from pp to AA                 | Jean-Francois Paquet |

### Lunch (12:30 - 14:00)

### Plenary Session VI: Heavy Flavor and Quarkonia (Chair: J. Stachel) – Regency A/B (14:00 - 16:00)

| <i>time</i> | <i>title</i>  | <i>presenter</i> |
|-------------|---|------------------|
| 14:00       | Heavy flavor production, flow and energy loss (experiment)      | Xin Dong         |
| 14:30       | Heavy flavor production, flow and energy loss (theory)          | Vincenzo Greco   |
| 15:00       | Quarkonium production in AA (experiment)                        | Enrico Scomparin |
| 15:30       | Quarkonium production in AA collisions from SPS to LHC (theory) | Ralf Rapp        |

### Coffee Break (16:00 - 16:30)

## Friday 10 February 2017

### Plenary Session VII: Other Recent Developments (Chair: K. Rajagopal) Regency A/B (16:30 - 18:30)

| <i>time</i> | <i>title</i>  | <i>presenter</i> |
|-------------|---|------------------|
| 16:30       | Global and local spin polarization in AA collisions       | Qun Wang         |
| 17:00       | Chiral and magneto-hydrodynamics for heavy-ion collisions | Yuji Hirono      |
| 17:30       | Status of nuclear PDFs after the first LHC p-Pb run       | Hannu Paukkunen  |
| 18:00       | Ultra-peripheral collisions and hadronic structure        | Spencer Klein    |

### Conference Banquet – Chrystal Ballroom (19:00 - 21:00)

## Saturday 11 February 2017

### Plenary Session VIII: Future Facilities and Directions (Chair: B. Jacak) Regency A/B (09:00 - 10:40)

| <i>time</i> | <i>title</i>  | <i>presenter</i>   |
|-------------|---|--------------------|
| 09:00       | Gravitational waves and the nuclear equation of state | Yuichiro Sekiguchi |
| 09:30       | Low-x physics in pA collisions and at the EIC         | Bowen Xiao         |
| 10:00       | Flash talks   |                    |

### Coffee Break (10:40 - 11:10)

### Closing Session (Chair: P. Giubellino) Regency A/B (11:10 - 12:30)

| <i>time</i> | <i>title</i>                                   | <i>presenter</i> |
|-------------|--|------------------|
| 11:10       | The way forward                                | William Zajc     |
| 11:40       | 2017 Zimanyi Nuclear Theory medal presentation | Miklos Gyulassy  |
| 11:50       | Elsevier Young Scientist awards                | Volker Koch      |
| 12:00       | Quark Matter 2018 presentation                 | Paolo Giubellino |
| 12:15       | Quark Matter 2017 closing                      |                  |

## Practical Information

### Mailing Address:

Quark Matter 2017 Conference  
Department of Physics  
c/o Olga Evdokimov  
University of Illinois at Chicago  
845 W. Taylor St. M/C 273  
Chicago, Illinois, USA, 60607-7059

<http://qm2017.phy.uic.edu>

### Conference Venue Address:

Hyatt Regency Chicago  
151 East Wacker Drive  
Chicago, Illinois, USA, 60601  
Tel: +1 (312) 565- 1234

<https://chicago.regency.hyatt.com/en/hotel/home.html>

### Conference Reception Address:

Art Institute of Chicago  
111 South Michigan Avenue  
Chicago, Illinois, USA, 60603-6404  
Tel: +1 (312) 443-3600

<http://www.artic.edu>

### Childcare Services:

Downtown Children's Learning Place  
400 North McClurg Court  
Chicago, Illinois, USA, 60611  
Tel: +1 (312) 828-9590

<http://childrenslearningplace.com>



## Practical Information

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### Instructions for Presenters

#### *Plenary and Parallel Talks:*

Plenary presentations are allocated 25 min plus 5 min for discussion; parallel talks will have 17 min plus 3 min for discussion.

All speakers are required to upload their talk slides in PDF or PPTX format to the INDICO conference server by 18:00 the day before their scheduled presentation. It is the responsibility of the speakers to stop by the Speakers Office to ensure their presentation is displayed correctly. If you have any issues uploading your talk, or displaying the slides our Office staff will be happy to assist in resolving any technical issues.

The Speakers Office is located in the *New Orleans* room in the main meeting area, and will be open on Sunday from 16:00 to 19:00 with the conference check-in, and will remain open during the conference hours for the rest of the week.

#### *Posters:*

Poster boards will be installed in the *Regency C*, *Regency D*, and *International Suites (Acapulco, Hong Kong, and Toronto)*. The poster areas will open for poster mounting on Sunday, February 5<sup>th</sup>, from 16:00 to 19:00 with the conference check-in; posters can continue to be mounted throughout Monday morning. The poster session will start at 16:00 on Monday, February 6<sup>th</sup>. The posters will be moved to a secure location for the parallel session days (Tuesday and Wednesday), and will be reinstalled for display by the Organizers on Thursday, February 9<sup>th</sup>, and will remain on display until the closing of the conference on Saturday, February 11<sup>th</sup>.

Posters should be printed on A0 paper (width of 33.11 in/84.1 cm and height of 46.81 in/119 cm) or fit within this size. All posters must also be uploaded to the conference INDICO server in order to participate in the selection for the flash talk session at 10:00 on Saturday, February 11<sup>th</sup>.

## Practical Information

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### Contacts

#### *Conference Chairs:*

Russell Betts (Illinois Institute of Technology)  
Olga Evdokimov (University of Illinois at Chicago)  
Ulrich Heinz (Ohio State University)

#### *Email Contacts:*

|                                    |                                  |
|------------------------------------|----------------------------------|
| General information and questions: | qm2017info@listserv.uic.edu      |
| Registration issues:               | qm2017_register@listserv.uic.edu |
| Visa issues:                       | qm2017_visa@listserv.uic.edu     |
| Young participants program:        | qm2017_assist@listserv.uic.edu   |

#### *Secretariat:*

The Conference Office is located in the *San Francisco* room in the main meeting area.

#### *Working Hours:*

|                                     |              |
|-------------------------------------|--------------|
| Sunday, February 5 <sup>th</sup>    | 8:00 – 19:00 |
| Monday, February 6 <sup>th</sup>    | 8:00 – 20:00 |
| Tuesday, February 7 <sup>th</sup>   | 8:00 – 20:00 |
| Wednesday, February 8 <sup>th</sup> | 8:00 – 20:00 |
| Thursday, February 9 <sup>th</sup>  | 8:00 – 14:00 |
| Friday, February 10 <sup>th</sup>   | 8:00 – 19:00 |
| Saturday, February 11 <sup>th</sup> | 8:00 – 14:00 |

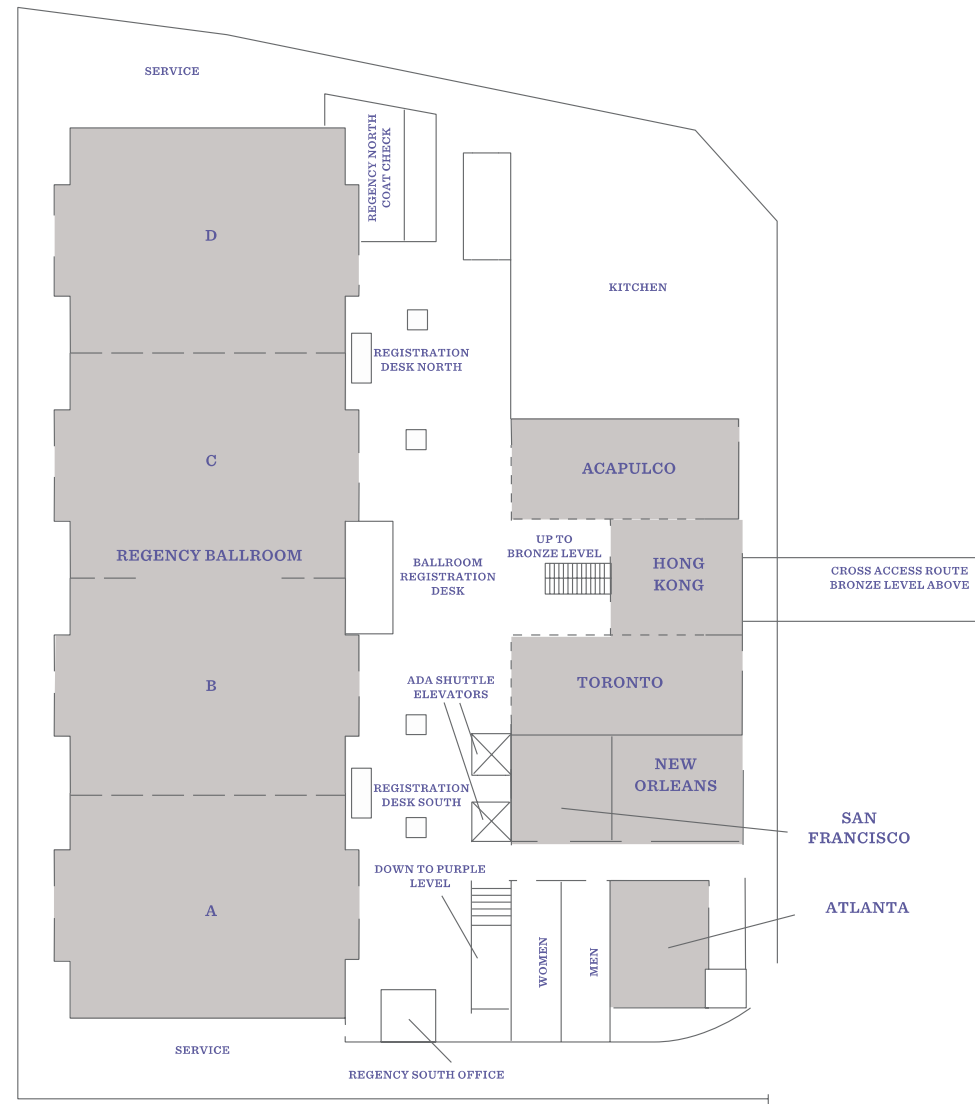
## Practical Information

### Area Map



## Practical Information

### Meeting Area: Hyatt Regency Chicago – Gold Level, West Tower





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