

# **Quarkonia As Tools 2020**

**Sunday, 12 January 2020 - Saturday, 18 January 2020**

**Centre Paul Langevin**  
**Programme**

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# Sunday 12 January 2020

Welcome drink (19:00-19:45)

Dinner (20:00-22:00)

# Monday 13 January 2020

## proton-proton, electron-proton and electron-positron collisions: review talks (08:30-12:00)

time	title	presenter
08:30	Introduction to the philosophy of the "Quarkonia as Tools" workshops	
08:50	Everything You Always Wanted to Know About Factorisation in Quarkonium Production* (*But Were Afraid to Ask)	MEHEN, Thomas
09:10	Overview of "conventional" quarkonium measurements : what's new ?	LI, Xu
09:30	KT factorisation in quarkonium production: associated production and going to one-loop accuracy	NEFEDOV, Maxim
10:00	Coffee break (30 minutes)	
10:30	Experimental overview of less conventional quarkonia: $\eta(c)$ , $\chi(Q)$ , X(3872) production	HE, Jibo
10:50	Quarkonium in/with/outside jets	MAKRIS, Yiannis
11:10	Overview on Quarkonium Associated Measurements at the LHC (Onium pair, Onium+Q, Onium Z/W, ...)	TEE, Amy
11:30	Brainstorming on EIC "Inclusive" quarkonium production vs the HERA legacy	QIU, Jianwei

**Lunch and free afternoon (12:00-16:45)****proton-proton, electron-proton and electron-positron collisions: Afternoon session: Q&A, topical talk & table  
(16:45-20:00)**

time	title	presenter
16:45	Q&A (Young Scientists 15')	
17:15	Update of NRQCD fits	WANG, Jianxiong
17:25	Theoretical Constraints on low-scale gluon PDFs from Quarkonia	OZCELIK, Melih Arslan
17:35	Chi(c) polarisation	
17:45	Round table discussion	
19:15	FDC	WANG, Jianxiong
19:30	HELAC-Onia Web	FLORE, Carlo
19:45	Tool session Part 1 (discussion)	

**Dinner (20:00-22:00)**

# Tuesday 14 January 2020

## exclusive/diffractive reactions: review talks (08:30-12:00)

-Conveners: Charlotte Barbara Van Hulse

time	title	presenter
08:30	Exclusive measurements of quarkonia and TCS in lepton-nucleon interactions	BOER, Marie
08:55	Measurements of quarkonia in Ultra-Peripheral Collisions at RHIC	ADAM, Jarda
09:15	Measurements of quarkonia in Ultra-Peripheral Collisions at LHC	WALCZAK, Marek Bohdan
09:35	Isolation in inclusive and exclusive processes	MCNULTY, Ronan
10:00	Coffee break (30 minutes)	
10:30	Exclusive double quarkonium production and generalized TMDs of gluons	BHATTACHARYA, Shohini
10:50	Tensor polarisation as a probe for hadrons and hadronic matter	TERYAEV, Oleg
11:10	Extraction of the low x and low scale gluon PDF via Ultra-Peripheral Collisions	FLETT, Chris
11:30	From Mueller-Navelet jets to forward J/psi+backward jet production	CELIBERTO, Francesco Giovanni

**Lunch and free afternoon (12:00-16:45)****exclusive/diffractive reactions: round table (16:45-20:00)****-Conveners: Ronan McNulty**

time	title	presenter
16:45	Q&A (Young Scientists 15')	MCNULTY, Ronan
17:15	Ultra-peripheral collisions to constrain GPDs	MEZRAG, Cedric
17:25	Importance of relativistic corrections inclusive vs exclusive quarkonium production processes	CHEN, An-ping
17:35	Topical talk (10')	
17:45	Round table discussion (Young scientists 5' Q&A)	MCNULTY, Ronan
19:15	Partons	MEZRAG, Cedric
19:30	Madgraph5	MATTELAER, Olivier
19:45	Tool session Part 2 (discussion)	



**Dinner (20:00-22:00)**

# Wednesday 15 January 2020

## TMDs, Spin, etc: Talks (08:30-12:00)

time	title	presenter
08:30	Unpolarized TMDs: theory & pheno status	SCIMEMI, Ignazio
08:50	Quarkonium COMPASS physics cases	PLATCHKOV, Stephane
09:10	Single Transverse Spin Asymmetries : Sivers vs Collins (who wins ?)	YOSHIDA, Shinsuke
09:30	Jpsi and Jpsi+jet lepto-production : what to expect from the EIC	TAEELS, Pieter Maria
10:00	Coffee break (30 minutes)	
10:30	Single Transverse Spin Asymmetries in quarkonium production : TMD vs CT3 vs CGI vs GPM vs ...	SANGEM, Rajesh
10:50	LHC-Fixed-Target Quarkonium Physics Case	MASSACRIER, Laure Marie
11:10	Probing gluon Sivers functions with the Odderon...	BOUSSARIE, Renaud
11:30	TBA	KASEMETS, Tomas

**Lunch and free afternoon (12:00-16:45)****TMDs, Spin, etc: Discussion & round table (16:45-20:00)**

time	title	presenter
16:45	Q&A session	
17:15	Fitting quarkonium FFs/TMDFFs : progress wrt last year ?	BERTONE, Valerio
17:25	Semi-analytic computation of quarkonium FFs	ZHANG, Peng
17:35	TBC	OZCELIK, Melih Arslan
17:45	Round table discussion	D'ALESIO, Umberto
19:15	Pythia and J/psi with jets	KOTLYAR, Volodymyr
19:30	APFEL	BERTONE, Valerio
19:45	Tool session Part 3 (discussion)	

**Workshop dinner (20:00-22:30)**

# Thursday 16 January 2020

## proton-nucleus and electron-nucleus (08:30-12:00)

time	title	presenter
08:30	PDF fits with heavy-flavour production and quarkonia at the LHC: opportunities, results and issues with present approaches and beyond	GARZELLI, Maria Vittoria
08:50	Introduction and open questions in proton-nucleus collisions	DURHAM, John Matthew
09:10	Nuclear PDF with NNPDF: constraints without parameterisation bias and next steps	ABDUL KHALEK, Rabah
09:30	Opportunities and caveats with nuclear pA heavy-flavour and quarkonium data: input data and combination attempts	SCHIENBEIN, Ingo
10:00	Coffee break (30 minutes)	
10:30	Coherent Energy loss as dominant explanation of nuclear modification: new developments and ways forward	NAÏM, Charles-Joseph
10:50	New observables in pA collisions: feasibility and status of $\chi$ , $\eta$ and DY	CRKOVSKA, Jana
11:10	CGC inclusive particle production: latest developments and open points	DUCLOUE, Bertrand
11:30	Flow like patterns in pA and pp with quarkonia and heavy-flavour	DAMAS, Florian

**Lunch and free afternoon (12:00-17:00)****proton-nucleus and electron-nucleus: Question session, short presentations and round table (16:45-20:00)****-Conveners: Michael Andreas Winn**

time	title	presenter
16:45	Q&A (young scientists 15')	
17:15	Excited quarkonia states in pp and pPb: an update	
17:25	Topical talks (max 2 of 10')	
17:45	Round table	
19:15	Back to the 3 first days	

**Dinner (20:00-22:00)**

# Friday 17 January 2020

## nucleus-nucleus collisions: Morning session (08:30-12:00)

-Conveners: **Émilien Chapon**

time	title	presenter
08:30	Transport models in small systems	PRINO, Francesco
08:50	Open quantum systems for quarkonia	YAO, Xiaojun
09:10	Quarkonium dynamics with a 1D quantum master equation	DELORME, Stéphane
09:30	Bottomonia in AA	PARK, Jaebeom
10:00	Coffee break (30 minutes)	
10:30	Charmonia in AA	ARSENE, Ionut Cristian
10:50	High pt charmonia in AA	HUANG, Chun-Lu
11:10	Upsilon flow	CARON, Robin
11:30	Quarkonia in AA in fixed target	AUDURIER, Benjamin



**Lunch and free afternoon (12:00-16:45)****nucleus-nucleus collisions: Round table and discussion (16:45-21:55)****-Conveners: Pol Gossiaux**

time	title	presenter
16:45	Q&A (Young Scientists 15')	GOSSIAUX, Pol
17:15	A density operator model for quarkonium production in PbPb collisions	ARREBATO VILLAR, Denys Yen ARREBATO-VILLAR, Denys Yen
17:25	Topical talks (max 2 of 10')	
17:45	Round table discussion	GOSSIAUX, Pol
19:15	Back to the 4 first days	

# Saturday 18 January 2020

## **DPS (08:30-10:30)**

time	title	presenter
08:30	Status on DPS factorisation	GAUNT, Jonathan Richard
08:50	Status on dPDF evolution	NAGAR, Riccardo
09:10	Status of DPS studies with quarkonia	YAMANAKA, Nodoka
09:30	Theoretical developments and phenomenology of DPS: quarkonium and beyond	RINALDI, Matteo
09:50	DPS in pA collisions and TPS	D'ENTERRIA, David
10:10	Discussion	

**Coffee (10:30-11:00)**

**Round table (11:00-13:00)**

**Lunch (13:00-14:00)**