

HORAIRE / *PROGRAM*

ATELIER : GRASSMANIENNES POSITIVES
APPLICATIONS AUX SYSTÈMES INTÉGRABLES ET AUX
AMPLITUDES DE DIFFUSION SUPER YANG-MILLS

27 au 31 juillet 2015

WORKSHOP: POSITIVE GRASSMANNIANS
APPLICATIONS TO INTEGRABLE SYSTEMS AND SUPER
YANG-MILLS SCATTERING AMPLITUDES

July 27–31, 2015

Conférences : salle 6254 (Pavillon André-Aisenstadt)

Pauses-café : salon Maurice-L'Abbé (salle 6245, Pavillon André-Aisenstadt)

Lectures: Room 6254 (Pavillon André-Aisenstadt)

Coffee Breaks: Salon Maurice-L'Abbé (Room 6245, Pavillon André-Aisenstadt)

Le lundi 27 juillet 2015 / *Monday, July 27, 2015*

09:00–09:25 Inscription (salle 5345) et café-croissants (salle 6245)
Registration (Room 5345) and Coffee & Croissants (Room 6245)

Président / *Chair* : Morning : Marco Bertola / Afternoon : John Harnad

09:25–09:30 Mots de bienvenue / *Welcoming addresses*

09:30–10:30 Max Glick (University of Minnesota)
“Y-meshes and generalized pentagram maps”

10:30–11:00 Pause-café / *Coffee break* (Salle / Room 6245)

11:00–12:00 Michael Gekhtman (University of Notre Dame)
“Cluster structure on the Drinfeld double of $GL(n)$ ”

12:00–13:00 Michael Shapiro (Michigan State University)
“Integrable systems in cluster algebra theory”

13:00–14:30 Pause-déjeuner / *Lunch break*

14:30–15:30 Sergey Fomin (University of Michigan)
“Webs, invariants, and clusters”

15:30–16:00 Pause-café / *Coffee break* (Salle / Room 6245)

16:00–17:00 Pavlo Pylyavskyy (University of Minnesota)
“Zamolodchikov integrability via rings of invariants”

17:30–19:30 Réception de bienvenue / *Welcoming Reception* (Salle / Room 6245)

Le mardi 28 juillet 2015 / Tuesday, July 28, 2015

09:00–09:30 Café croissants / *Coffee & Croissants* (Salle / Room 6245)

Président / *Chair* : Morning : Michael Gekhtman / Afternoon : Sergey Fomin

09:30–10:30 Rinat Kedem (University of Illinois at Urbana-Champaign)
“Representations of current algebras, CFT characters, and quantum cluster algebras”

10:30–11:00 Pause-café / *Coffee break* (Salle / Room 6245)

11:00–12:00 Philippe R. Di Francesco (University of Illinois at Urbana-Champaign)
“Whittaker functions, cluster algebras and Macdonald difference operators”

12:00–12:15 Séance photo à l’entrée du Pavillon Aisenstadt / *Photo Session at the entrance of the Aisenstadt building*

12:15–14:00 Pause-déjeuner / *Lunch break*

14:00–15:00 Richard Kenyon (Brown University)
“Double Vandermonde matrices and the spectral transform”

15:00–15:30 Pause-café et session d’affiche / *Coffee break and Poster Session* (Salle / Room 6245)

15:30–16:30 Gregg Musiker (University of Minnesota)
“Combinatorics of toric cascades: Aztec castles and beyond”

Contributions brèves

Contributed Talks

Président / *Chair* : Gregg Musiker

16:35–17:05 Miriam Farber (MIT)
“Arrangements of equal minors in the positive Grassmannian”

17:10–17:40 Alexander Garver (University of Minnesota)
“Lattice properties of oriented exchange graphs”

17:45–18:15 Nicholas Early (Penn State University)
“Symmetry and geometric structure for the Worpitzky identity”

Le mercredi 29 juillet 2015 / *Wednesday, July 29, 2015*

09:00–09:30 Café croissants / *Coffee & Croissants* (Salle / Room 6245)

Président / *Chair* : Morning : Rinat Kedem / Afternoon : Michael Shapiro

09:30–10:30 Lauren K. Williams (University of California, Berkeley)
“Cluster duality and mirror symmetry for Grassmannians”

10:30–11:00 Pause-café / *Coffee break* (Salle / Room 6245)

11:00–12:00 Harold Williams (The University of Texas at Austin)
“Bipartite graphs and microlocal geometry”

12:00–13:00 Andrey Marshakov (P.N.Lebedev Physics Institute)
“Supersymmetric gauge theories and exact conformal blocks”

13:00–14:30 Pause-déjeuner / *Lunch break*

14:30–15:30 Andrew Neitzke (The University of Texas at Austin)
“Spectral networks and Grassmannians”

15:30–16:30 Greg Muller (University of Michigan)
“Twists for positroids varieties”

Le jeudi 30 juillet 2015 / *Thursday, July 30, 2015*

09:00–09:30 Café croissants / *Coffee & Croissants* (Salle / Room 6245)

Président / *Chair* : Morning : Andrew Neitzke / Afternoon : Philippe Di Francesco

09:30–10:30 Nima Arkani-Hamed (Institute for Advanced Study)
“The Amplituhedron”

10:30–11:00 Pause-café / *Coffee break* (Salle / Room 6245)

11:00–12:00 Hugh Thomas (UQÀM)
“Combinatorics of the amplituhedron”

12:00–13:00 Sebastian Franco (The City College of New York)
“New approaches to scattering amplitudes: From on-shell diagrams to the Amplituhedron”

13:00–14:30 Pause-déjeuner / *Lunch break*

14:30–15:30 Lionel J. Mason (University of Oxford)
“The twistor action and corralahedra”

15:30–16:00 Pause-café / *Coffee break* (Salle / Room 6245)

16:00–17:00 Jaroslav Trnka (California Institute of Technology)
“Positive amplitudes In the amplituhedron”

Le vendredi 31 juillet 2015 / Friday, July 31, 2015

09:00–09:30 Café croissants / *Coffee & Croissants* (Salle / Room 6245)

Président / *Chair* : Lauren Williams

09:30–10:30 Yuji Kodama (The Ohio State University)
“Regular triangulations of point sets and solitons in two dimensions”

10:30–11:00 Pause-café / *Coffee break* (Salle / Room 6245)

11:00–12:00 Simonetta Abenda (Universita' di Bologna)
“Rational degenerations of M-curves, totally positive Grassmannians and KP-solitons”

12:00–13:00 Table ronde : Soliton moduli and SYM scattering amplitudes : coincidence or design? - Membres : John Harnad (Chair), Michael Gekhtman, Yuji Kodama, Lionel Mason, Lauren Williams, Jaroslav Trnka / *Panel discussion: Soliton moduli and SYM scattering amplitudes: coincidence or design? - Panel Members: John Harnad (Chair), Michael Gekhtman, Yuji Kodama, Lionel Mason, Lauren Williams, Jaroslav Trnka*