Program Eleventh Workshop on Non-Perturbative QCD l'Institut d'Astrophysique de Paris - Paris, France 6-10 June 2011

Program

June 6 Monday (morning)

| 9:00 a.m. | Registration |
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| | Doors will not open before 9:00 a.m. |
| 9:25 | Welcoming Remarks by Chung-I Tan |

Lattice QCD and Confinement

| 9:30 a.m. 9:30 10:00 10:30 | Session Chair: K. Orginos K. Orginos: "Properties of Systems with Baryon Number Two" A. Di Giacomo: "Confinement by Dual Superconductivity: an Update" P. DeForcrand: "The Two-Body and the Many-body Problem in QCD from the Lattice" |
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| 11:00 | Refreshments |
| 11:30 12:00 12:30 | D. Zappala: "Quasi-particle degrees of freedom in finite temperature SU(N) gauge theories" M. Hanada: "Universality of Phases in QCD and QCD-Like Theories" M. Ruggieri: "The Critical End Point of Quantum Chromodynamics Detected by Chirally Imbalanced Quark Matter" |
| 1:00 p.m. | Lunch |

June 6, Monday (afternoon)

Progress in Holography and YM Theories

| 2:30 p.m. 2:30 3:00 3:30 | Session Chair: K. Hashimoto S. Sugimoto: "QCD and String Theory" P. Yi: "D4/D8 Holographic QCD" S. Bartz: "Pions and Strange Mesons in a Soft-Wall Model of AdS/QCD" |
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| 4:00 | Refreshments |
| 4:30 | C. Bender: "Latest Results on PT Quantum Theory" |

| 5:00 | T. Morita: "Phase Structure of Yang-Mills Theory on a Small Torus" |
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| 5:30 | E. Poppitz: "The Structure of Magnetic Bions and the Relatio Between |
| | the Polyakov and Seiberg-Witten Confinement Mechanisms" |
| 6:00 | G. Fleming: "Strong Dynamics and Beyond the Standard Model" |

6:30 Session ends

June 7, Tuesday (morning)

Amplitudes and Strings

| 9:25 a.m. 9:25 | Session Chair: P. Heslop P. Heslop: "Dualities for Scattering Amplitudes in Maximally |
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| | Supersymmetric Gauge Theory" |
| 9:55 | B. Eden: "From Correlators to Wilson Loops and Super-Amplitudes" |
| 10:25 | C. Duhr: "Two-loop Remainder Functions in N=4 Super Yang-Mills" |
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| 10:55 | Refreshments |
| 11:15 | G. Yang: "Scattering Amplitudes at Strong Coupling in $N=4$ SYM" |
| 11:45 | |
| | V. Del Duca: "Wilson Loops and Amplitudes in N=4 SYM" |
| 12:15 | L. Mazzucato: "Computing Anomalous Dimensions at Strong Coupling" |
| 12:45 | P. Vanhove: "The Momentum Kernel of Gauge and Gravity Theories" |
| 1:15 p.m | Lunch |

June 7, Tuesday (afternoon)

High Energy Scattering in ACD and AdS/CFT

| 2:30 p.m. 2:30 3:00 3:30 | Session Chair: C-I Tan G. Veneziano: "Transplanckian Scattering of Particles, Strings and Branes" Y. Yang: "High Energy Scattering and Symmetries in String Theory" C-I Tan: "Holographic Double Diffractive Higgs Production" |
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| 4:00 | Refreshments |
| 4:30 | L. Schoeffel: "Diffraction at HERA on behalf of the H1 and ZEUS Collaborations" |
| 5:00 | M. Djuric: "String-Gauge Dual Description of Deep Inelastic Scattering at Small x" |
| 5:30 | H. Kowalski: "Using HERA Data to Determine the BFKL Amplitude Infrared Behaviour" |
| 6:00 | C. Ballon Bayona: "Electromagnetic Scattering of Vector Mesons in the Sakai-Sugimoto Model' |
| 6:30 | Session ends |

June 8, Wednesday (morning)

Results from LHC

| 9:30 a.m. | Session Chair: TBA |
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| 9:30 | A. Kastanas: "Recent QCD Results from ATLAS" |
| 10:00 | A. Knutsson: "Recent Results from CMS" |
| 10:30 | C. Nattrass: "Recent Results from ALICE" |
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| 11:00 | Refreshments |
| 11.90 | V. Francis, "Otation of the TOTEM Francisco and and Latert Description |
| 11:30 | K. Eggert: "Status of the TOTEM Experiment and Latest Results" |
| 12:00 | M. Islam: "Proton Structure and Prediction of pp Elastic Scattering at LHC |
| | at Center-of-Mass Energy 7 TeV" |
| 12:30 | K. Werner: "Quark-Gluon Plasma in Proton-Proton Scattering at the LHC" |

June 8, Wednesday (afternoon)

FREE

Wednesday Evening 7:30 Banquet at Chez Francoise

June 9, Thursday (morning)

Heavy Ion Physics from RHIC to LHC"

| 9:30 a.m. 9:30 10:00 | Session Chair: B. Mueller B. Mueller: "Thermolization in QCD and AdS/CFT" K. Hashimoto: "Rapid Theralization by Baryon Injection in Gauge/Gravity Duality" D. Varrant, "Bool Times AdS/CET and Applications to Let Overschipt" |
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| 10:30 11:00 | D. Vaman: "Real-Time AdS/CFT and Applications to Jet Quenching" Refreshments |
| 11:30 12:00 12:30 | K. Landsteiner "Anomalies and Transport Coefficients"E. Iancu: "Interference Effects in Medium Induced Gluon Radiation"O. Oliveira: "From Running Gluon Mass to Chiral Symmetry Breaking" |
| 1:00 pm | Lunch |

June 9, Thursday (afternoon)

From LHC to CR/Astro

| 2:30 p.m. | Session Chair: I. Sarcevic and J. Martin |
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| 2:30 | M. Lilley: "Observational Signatures of a Non-Singular Bouncing Cosmology" |
| 3:00 | H. Reno: "Neutrinos from Charm Production: Atmospheric and Astrophysical Applications" |
| 3:30 | I. Sarcevic: "Probing Dark Matter with Neutrinos from the Galactic Center" |
| 4:00 | Refreshments |
| 4:30 | D. Semikoz: "Ultra-High Energy Nuclei Source in Virgo Galaxy Cluster" |
| 5:00 | T. Stanev: "Ultrahigh Energy Cosmic Rays: Detection and Analysis" |
| 5:30 | R. Enberg: "Astrophysical Neutrinos from Charm Production: QCD Issues" |
| 6:00 | F. Hautmann: "Forward Hard Processes in Hadronic Collisions" |
| 6:30 | Session ends |

June 10, Friday (morning)

AdS/CFT and YM Theories

| 9:30 a.m. | Session Chair: A. Jevicki |
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| 9:30 | A. Jevicki: "Higher Spin ADS Duality from CFT: A Constructive Approach" |
| 10:00 | S. Das: "Holographic Quantum Quench" |
| 10:30 | A. V. Koshelkin: "The Non-Perturbative Self-Consistent Model in |
| | SU(N) Gauge Field Theory" |

11:00 Refreshments

Networks and Cascades

| 11:15 a.m. | Session Chair: A. Leonidov and B. Mueller |
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| 11:15 | E. Stanley : "Isolated Network and Coupled Networks—A Brief Introduction" |
| 11:45 | E. Iancu: "Parton Branching at Strong Coupling from AdS/CFT" |
| 12:15 | P. Bialas : "Tree Graphs with Causal Structure" |
| 12:45 | A. Leonidov: "Complex Networks: a New Synthesis" |
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1:15 pm Lunch

June 10, Friday (afternoon)

Analytic, Non-Perturbative QFT

| 2:15 p.m. | Session Chair: H. Fried |
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| 2:15 | J. W. Moffat: "Ultraviolet Complete Quantum Field Theory" |
| 2:45 | H. Sazdjian: "The gauge invariant quark Green's function in QCD2" |
| 3:15 | I. Bogolusky: "On Localized Nonperturbative Solutions in 2D and 3D" Gluodynamics" |
| 3:45 | V. Branchina: "Fermion Masses from a Cross-Over Mechanism" |
| 4:15 | Refreshments |
| 4:30 | T. Grandou: "On Some Technical Aspects of the QCD Effective Locality Property" |
| 5:00 | M. Frasca: "Low-Energy Limit of QCD at Finite Temperature" |
| 5:30 | A. Nesterenko: "The Effects Due to Hadronization in the Inclusive Tau Lepton Decay" |
| 6:00 | H. Fried: "A New, Analytic, Non-Perturbative, Gauge-Invariant Formulation of Realistic QCD" |
| 6:30 | "End of Workshop" |