

International Winter School
PARTITION FUNCTIONS AND AUTOMORPHIC FORMS
 BLTP JINR, January 29 – February 2, 2018
 Schedule

Sunday 28 January,

20:00-21:00	Registration at the hotel "Dubna"
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Monday 29 January, BLTP JINR, Conf. hall, 2nd floor

9:00 - 9:50	Registration at the Visit Center
10:00 - 10:10	Opening of the School
10:10 - 11:10	<i>Lecture Course.</i> S. Kim, SUPERCONFORMAL INDICES AND INSTANTON PARTITION FUNCTIONS, I.
11:10 - 11:40	Coffee break
11:40 - 12:40	<i>Lecture Course.</i> S. Kim, SUPERCONFORMAL INDICES AND INSTANTON PARTITION FUNCTIONS, II.
12:40 - 14:30	Lunch (JINR canteen)
14:30 - 15:30	<i>Lecture Course.</i> P. Vanhove, FEYNMAN INTEGRALS AND MODULAR FORMS, I.
15:30 - 16:00	Coffee break
16:00 - 17:00	<i>Lecture Course.</i> P. Vanhove, FEYNMAN INTEGRALS AND MODULAR FORMS, II.
17:00 - 18:00	<i>Survey Lecture.</i> V. Spiridonov, INTRODUCTION TO THE THEORY OF ELLIPTIC HYPERGEOMETRIC INTEGRALS
18:10 - 18:40	<i>Talks by participants.</i> A. Bolshov, Grassmannians and form factors, 15' A. Zadora, Dilaton black holes, integrability and coupling constant quantization, 15'
18:45	Welcome party (BLTP cafeteria)

Tuesday 30, January

10:00 - 11:00	<i>Lecture Course.</i> H. Nicolai, ON $K(E_{10})$ AND ITS FERMIONIC REPRESENTATIONS, I.
11:00 - 11:30	Coffee break
11:30 - 12:30	<i>Lecture Course.</i> H. Nicolai, ON $K(E_{10})$ AND ITS FERMIONIC REPRESENTATIONS, II.
12:30 - 13:00	<i>Talks by participants.</i> I. Gahramanov, Supersymmetric indices, elliptic hypergeometric functions and integrability
13:00 - 14:30	Lunch
14:30 - 15:30	<i>Lecture Course.</i> P. Vanhove, FEYNMAN INTEGRALS AND MODULAR FORMS, III.

15:30 - 16:00	Coffee break
16:00 - 17:00	<i>Lecture Course.</i> P. Vanhove, FEYNMAN INTEGRALS AND MODULAR FORMS, IV.
17:00 - 17:30	Talks by participants. P. Agarwal, N=1 Lagrangians for generalized Argyres-Douglas theories
17:30 - 18:00	<i>Talks by participants</i> L. Bork, Integrands for form factors in N=4 SYM and ambitwistor strings.
20:00	Evening discussions at the Hotel conference hall.

Wednesday, 31 January

10:00 - 11:00	<i>Lecture Course.</i> J. Duncan, MOONSHINE IN NUMBER THEORY AND GEOMETRY, I.
11:00 - 11:30	Coffee break
11:30 - 12:30	<i>Lecture Course.</i> J. Duncan, MOONSHINE IN NUMBER THEORY AND GEOMETRY, II.
12:30 - 13:00	<i>Talks by participants.</i> A. Chowdhury, Calabi-Yau manifolds and sporadic groups
13:00 - 14:30	Lunch
14:30 - 15:30	<i>Lecture Course.</i> S. Kim, SUPERCONFORMAL INDICES AND INSTANTON PARTITION FUNCTIONS, III
15:30 - 16:00	Coffee break
16:00 - 17:00	<i>Lecture Course.</i> S. Kim, SUPERCONFORMAL INDICES AND INSTANTON PARTITION FUNCTIONS, IV
17:00 - 18:00	<i>Survey Lecture.</i> Du Pei, BPS SPECTRA AND INVARIANTS FOR THREE- AND FOUR-MANIFOLDS
18:00 - 18:30	<i>Talks by participants.</i> A. Chattopadhyaya, Dyon degeneracies from Mathieu moonshine symmetry
20:00	Evening discussions at the Hotel conference hall

Thursday, 1 February

10:00 - 11:00	<i>Lecture Course.</i> Y. Yamada, THEORY AND APPLICATIONS OF THE ELLIPTIC PAINLEVE EQUATION, I.
11:00 - 11:30	Coffee break
11:30 - 12:30	<i>Lecture Course.</i> Y. Yamada, THEORY AND APPLICATIONS OF THE ELLIPTIC PAINLEVE EQUATION, II.
12:30 - 13:00	<i>Talks by participants.</i> K. Sun, Blowup Equations for Refined Topological Strings
13:00 - 14:30	Lunch
14:30 - 15:30	<i>Lecture Course.</i> J. Duncan, MOONSHINE IN NUMBER THEORY AND GEOMETRY, III.

15:30 - 16:00	Coffee break
16:00 - 17:00	<i>Lecture Course.</i> J. Duncan, MOONSHINE IN NUMBER THEORY AND GEOMETRY, IV.
17:00 - 18:00	<i>Survey Lecture.</i> V. Nikulin, LORENTZIAN KAC-MOODY ALGEBRAS, I
18:00 - 18:30	Talks by participants. R. Matias, Replication and Sporadic Groups
20:00	Evening discussions at the Hotel conference hall.

Friday, 2 February

10:00 - 11:00	<i>Lecture Course.</i> Y. Yamada, THEORY AND APPLICATIONS OF THE ELLIPTIC PAINLEVE EQUATION, III.
11:00 - 11:30	Coffee break
11:30 - 12:30	<i>Lecture Course.</i> Y. Yamada, THEORY AND APPLICATIONS OF THE ELLIPTIC PAINLEVE EQUATION, IV.
12:30 - 13:00	<i>Talks by participants.</i> M. Bershtein, Difference Painleve equations from 5d gauge theories
13:00-14:30	Lunch
14:30 - 15:30	<i>Survey Lecture.</i> V. Gritsenko, LORENTZIAN KAC-MOODY ALGEBRAS, II
15:30 - 16:00	Coffee break
16:00 - 17:00	<i>Talks by participants.</i> L. Astrakhantsev, Moving mirrors in 2 dimensional QFT, 15' D. Adler, The ring of weak Jacobi forms for D_8 root system, 15' A. Lobashev, Kontsevich integral in topological models of gravity, 15' A. Chekmenev, Conformal Lagrangians from the (formal) near boundary analysis of AdS gauge fields, 15'
17:00	Closure of the School