

SUJAY KRISHNAN ASHOK

PLACE AND DATE OF BIRTH: Kerala, India | 2 November 1978
CITIZENSHIP: Indian
MAILING ADDRESS: Institute of Mathematical Sciences
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OCT 2011-PRESENT	IMSc , Chennai, India <i>Associate Professor (Reader 'F')</i>
JUNE 2007-OCT 2011	IMSc , Chennai, India <i>Assistant Professor (Fellow 'E')</i>
JUNE 2005-MAY 2007	Perimeter Institute for Theoretical Physics , Waterloo, Canada <i>Postdoctoral Researcher</i>
AUG 2000-JUNE 2005	Rutgers University , Piscataway, USA <i>Graduate Student</i>

JUNE 2005 PhD degree in PHYSICS, **Rutgers University, USA**
 THESIS: “Yang-Mills theories from non-critical strings and the statistics of
 type IIB flux compactifications”
 ADVISOR: Prof. **Michael R. Douglas**

JUNE 2000 Degree of *Bachelor of Technology* in Engineering Physics
Indian Institute of Technology Bombay, India

TEACHING EXPERIENCE

FALL 2015	IMSc, Chennai, India <i>Lecturer</i> Mathematical Methods II , graduate course. 30 lectures spread over 15 weeks.
SPRING 2015	IMSc, Chennai, India <i>Lecturer</i> Classical Field Theory , graduate course. 30 lectures spread over 15 weeks.
FALL 2013	IMSc, Chennai, India <i>Lecturer</i> Mathematical Methods II , graduate course. 30 lectures spread over 15 weeks.
SPRING 2013	IMSc, Chennai, India <i>Lecturer</i> Quantum Mechanics II , graduate course. 45 lectures spread over 15 weeks.
SPRING 2011	IMSc, Chennai, India <i>Lecturer</i> Quantum Field Theory II , graduate course. 45 lectures spread over 15 weeks
SPRING 2010	IMSc, Chennai, India <i>Lecturer</i> Quantum Field Theory I , graduate course. 45 lectures spread over 15 weeks
NOVEMBER 2009	Preparatory SERC School in Theoretical High Energy Physics Department of Physics, IIT Madras, Chennai <i>Tutor</i> Tutored about 30 students who attended a two week long course on General Relativity taught by Prof. Ghanshyam Date of IMSc

OTHER RELEVANT EXPERIENCE

CONFERENCE ORGANIZATION	INDIAN STRINGS MEETING ISM14 Puri, India, December 2014 <i>Organizer</i>
	MOCK-MODULAR FORMS AND PHYSICS IMSc, Chennai, India, April 2014 <i>Organizer</i>
	NATIONAL STRINGS MEETING NSM13 Kharagpur, India, December 2013 <i>National Organizing Committee</i>
	DISCUSSION MEETING ON SCATTERING AMPLITUDES ICTS, Bangalore, India, September 2012 <i>Co-Organizer</i>
	INDIAN STRINGS MEETING ISM08 Pondicherry, India, January 2008 <i>Organizer</i>
OUTREACH TALKS	<i>Why String Theory</i> IMSc, Chennai, 2008
	<i>The case for Quantum Gravity</i> College of Arts and Sciences, Calicut, India, 2005

PUBLICATIONS

- 1604.05520 [\[hep-th\]](#) S. K. Ashok, D. P. Jatkar, R. R. John, M. Raman, J. Troost
Exact WKB Analysis of $N = 2$ Gauge Theories
Submitted for publication in JHEP
- 1601.01827 [\[hep-th\]](#) S. K. Ashok, E. Dell'Aquila, A. Lerda, M. Raman
S-duality, triangle groups and modular anomalies in $N=2$ SQCD
JHEP 1604 (2016) 118
- 1507.07476 [\[hep-th\]](#) S. K. Ashok, M. Billo, E. Dell'Aquila, M. Frau, A. Lerda, M. Raman
Modular anomaly equations and S-duality in $\mathcal{N} = 2$ conformal SQCD
JHEP 1510 (2015) 091
- 1502.05581 [\[hep-th\]](#) S. K. Ashok, M. Billo, E. Dell'Aquila, M. Frau, R. R. John, A. Lerda
Non-perturbative studies of $N=2$ conformal quiver gauge theories
Fortsch. Phys. **63**, 259 (2015)
- 1404.7396 [\[hep-th\]](#) S. K. Ashok, E. Dell'Aquila, J. Troost
Higher Poles and Crossing Phenomena from Twisted Genera
JHEP 1408 (2014) 087
- 1311.1110 [\[hep-th\]](#) S.K. Ashok, N. Doroud, J. Troost
Localization and real Jacobi forms
JHEP 1404 (2014) 119
- 1310.2124 [\[hep-th\]](#) S.K. Ashok, J. Troost
Elliptic genera and real Jacobi forms
JHEP 1401 (2014) 082
- 1302.1045 [\[hep-th\]](#) S.K. Ashok, S. Nampuri, J. Troost
Counting Strings, Wound and Bound
JHEP 1304 (2013) 096
- 1204.3802 [\[hep-th\]](#) S.K. Ashok, J. Troost
Elliptic Genera of Non-compact Gepner Models and Mirror Symmetry
JHEP 1207 (2012) 005

PUBLICATIONS (*Contd.*)

- 1101.1059 [hep-th] S. K. Ashok, J. Troost
A Twisted Non-compact Elliptic Genus
 JHEP 1103 (2011) 067
- 1012.5094 [hep-th] S. K. Ashok, E. Dell'Aquila
On the Classification of Residues of the Grassmannian
 JHEP 1110 (2011) 097
- 1004.0098 [hep-th] S. K. Ashok, N. V. Suryanarayana
Supersymmetric Electromagnetic Waves on Giants and Dual-Giants
 JHEP 1205 (2012) 074
- 0907.1242 [hep-th] S. K. Ashok, R. Benichou, J. Troost
*Asymptotic Symmetries of String Theory on $AdS_3 \times S^3$ with
 Ramond-Ramond Fluxes*
 JHEP 0910 (2009) 051
- 0903.4277 [hep-th] S. K. Ashok, R. Benichou, J. Troost
Conformal Current Algebra in Two Dimensions
 JHEP 0906 (2009) 017
- 0808.2042 [hep-th] S. K. Ashok, N. V. Suryanarayana
Counting Wobbling Dual-Giants
 JHEP 0905 (2009) 090
- 0710.1990 [hep-th] S. K. Ashok, R. Benichou, J. Troost
*Non-compact Gepner Models, Landau-Ginzburg Orbifolds and
 Mirror Symmetry*
 JHEP 0801 (2008) 050
- hep-th/0703148 S. K. Ashok, S. Murthy, J. Troost
*D-branes in Unoriented Non-critical Strings and Duality in $SO(N)$
 and $Sp(N)$ Gauge Theories*
 JHEP 0706 (2007) 047
- hep-th/0611082 S. K. Ashok, F. Cachazo and E. Dell'Aquila
Children's Drawings from Seiberg-Witten Curves
 Communications in Number Theory and Physics, Volume 1, No. 2

PUBLICATIONS (*Contd.*)

- [hep-th/0610080](#) S. K. Ashok, F. Cachazo and E. Dell'Aquila
Strebel Differentials with Integer Lengths and Argyres-Douglas Singularities
- [hep-th/0604020](#) S. K. Ashok, J. Troost
The Topological Cigar Observables
JHEP 0608 (2006) 067
- [hep-th/0511239](#) S. K. Ashok, S. Murthy, J. Troost
Topological Cigar and the $c = 1$ String : Open and Closed
JHEP 0602 (2006) 013
- [hep-th/0504079](#) S. K. Ashok, S. Murthy, J. Troost
D-branes in non-critical superstrings and minimal super Yang-Mills in various dimensions
Nucl. Phys. B749 (2006) 172-205
- [hep-th/0404167](#) S. K. Ashok, E. Dell'Aquila, D.-E Diaconescu and B. Florea
Obstructed D-Branes in Landau-Ginzburg Orbifolds
Adv. Theor. Math. Phys., **8**, 515-563
- [hep-th/0401135](#) S. K. Ashok, E. Dell'Aquila and D.-E Diaconescu
Fractional Branes in Landau-Ginzburg Orbifolds
Adv. Theor. Math. Phys., **8**, 461-513
- [hep-th/0307049](#) S. K. Ashok, M. R. Douglas
Counting Flux Vacua
JHEP 0401 (2004) 060
- [hep-th/0211291](#) S. K. Ashok, R. Corrado, N. Halmagyi, K. D. Kennaway, C. Romelsberger
Unoriented Strings, Loop Equations, and $N=1$ Superpotentials from Matrix Models
Phys. Rev. D67 (2003) 086004

INVITED TALKS

04-2016	<i>S-duality, triangle groups and modular anomalies in $\mathcal{N} = 2$ SQCD</i>	TIFR, India
04-2016	<i>Lectures on $\mathcal{N} = 2$ supersymmetric gauge theories</i>	TIFR, India
12-2015	<i>S-duality, j-invariants and modular anomalies in $\mathcal{N} = 2$ SQCD</i>	Indo-Israel Conference on String Theory, Goa
12 - 2014	<i>Aspects of $N=2$ conformal quiver gauge theories</i>	INDIAN STRINGS MEETING (Puri, India)
09-2014	<i>Elliptic genera and mock-modular forms</i>	TIFR, India
05-2014	<i>Elliptic genera of non-compact CFTs and mock-modular forms</i>	New Frontiers in Theor. Physics Cortona, Italy
05-2014	<i>Localization and real Jacobi forms</i>	Università di Torino, Italy
12 - 2013	<i>Localization and real Jacobi forms</i>	NATIONAL STRINGS MEETING (IIT Kharagpur, India)
06 - 2013	<i>Elliptic genera and mock-modular forms</i>	Università di Torino, Italy
12 - 2012	<i>A Noncompact Elliptic Genus</i>	INDIAN STRINGS MEETING (Puri, India)
12 - 2011	<i>On the Classification of Residues of the Grassmannian</i>	NATIONAL STRINGS MEETING Delhi, India
10 - 2009	<i>Conformal Current Algebra in Two Dimensions</i>	IISc, Bangalore, India
12 - 2008	<i>Wobbling Dual-giants</i>	INDIAN STRINGS MEETING (Pondicherry, India)
09 - 2008	<i>Wobbling Dual-giants</i> ⁷	Università di Torino, Italy
11 - 2007	<i>Mirror Symmetry for non-compact orbifolds</i>	Perimeter Institute, Canada

INVITED TALKS

10 - 2006	<i>Children's Drawings from Seiberg-Witten Curves</i>	University of Toronto, Canada
10 - 2006	<i>Strebel Differentials and Argyres-Douglas Singularities</i>	University of Toronto, Canada
01 - 2006	<i>Topological Cigar and $c = 1$ String: Open and Closed</i>	IMSc, Chennai, India
09 - 2005	<i>D-branes in Non-critical Strings and $N=1$ Super Yang-Mills</i>	Perimeter Institute, Canada
04 - 2005	<i>D-branes in Non-critical Strings and $N=1$ Super Yang-Mills</i>	TIFR, Mumbai, India
12 - 2004	<i>Distributions of Flux Vacua</i>	INDIAN STRINGS MEETING (Khajuraho, India)
01 - 2004	<i>Counting Flux Vacua</i>	Harvard University, USA

ACADEMIC REFERENCES

Prof. Alberto Lerda

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