Graduate Admission and Scholarship Application Form (GRADSAF)



This form should be completed if you wish to apply for admission as a graduate student at the University of Cambridge.

If you are, or have previously been, a graduate student at the University of Cambridge please see www.admin.cam.ac.uk/offices/gradstud/prospec/apply/continuation/ for information regarding the continuation process.

		SECTION A: AI	II questi	ons must b	oe comp	oleted			
A(1) Personal details					•				
Name (this should b		legal name)		Name (prev	vious)			nt name during a e, please include	
First Other names	Arora Atul Sir Mr			Last (family) First Other first names Title (Mr/Mrs/Miss/Dr etc)		bridg.	s, piouse moiaue	R Note.	
Date of Birth		Nationality and residence							
20 11 199 DD MM YY Gender X Male Fe		Country of permanent residence India Nationality India Any second nationality Not Applicable						Do you require a to study in the U	
A(2) Contact Informa	tion								
Number/street Town or city County/province/state Postal code Country Telephone Email Address	Darya New Delhi 11000 India +911 This ac	(UT)	DD/Mi	M/YYYY	I have I	lived at this ac	ddres	y clearly, we will u	DD/MM/YYYY
A(3) Programme of S	tudy								
Date you wish to start Study mode (tick one only) Please note: not all courses are available part-time – see individual course entry in the online Qualifications Directory									
		e of study. Consult the appropriate				ory before con			
MAAM21	PhD	PhD (Probationary) in Applied Maths and Theoretical Physics Depart				th & Theo P		Final Award PHD	Duration 4

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A(4) College membership (please consult the College section of the Prospective Students area of the Board's website)

You may choose up to two Cambridge Colleges to consider your application. If you do not indicate a choice in this section, the Board of Graduate Studies will allocate a College to you. You cannot amend these choices after you have submitted your application. Should you receive a conditional offer of admission from the Board, your application will be sent to your 1st choice College and then your 2nd choice College. Should neither College offer you membership, your application will be circulated to other Colleges.

In the College Choice Form below, write "1" in the box next to your 1st choice College, and "2" in the box next to your 2nd choice College. No other choices will be taken into consideration. If you have studied at Cambridge before, please also write the name of your previous College in the 'Existing College Membership' section on the right.

College Choice Form				Existing College Membership						
Do not tick the boxes – you m	ust v	write a r	number to show yo	ur ord	der of preference.		If you	are already	a member c	f a Cambridge
Christ's Homerton Queens'			College, please indicate which one . This is fo the Board's information only, and does no							
Churchill		Hughe	es Hall		Robinson		constitute an application to the College.			
Clare		Jesus			St Catharine's		College	lleae		
Clare Hall		King's			St Edmund's		Name			
Corpus Christi		Lucy (Cavendish *		St John's			If you wish your application to be considere by this College, you must also name it a		
Darwin		Magda	alene		Selwyn		one of			ollege Choice
Downing		Murra	y Edwards *		Sidney Sussex		You sh	ould contac		if you consider
Emmanuel		(forme	rly New Hall)	1	Trinity		naming	another Co	llege as first c	hoice.
Fitzwilliam		Newnl	nam *		Trinity Hall					
2 Girton		Pemb	roke		Wolfson					
Gonville and Caius		Peterh	nouse		Open Application		* Colleg	es for wome	n only	
Tick one: X I am current Name of University (include country) Indian Institute of Science Ed			as follows: Subject (include Faculty/E Physics (Departm Science)		tment)	Degree Dual Deg	Da	dying – go to the started arg 2011	Date to be obtained May 2016	Expected Grade 9.4/10
A(6) Previous degree-level s	tudy	(most	recent first)							
Name of University (include country)			Subject (include Faculty/D	Depar	rtment)	Degree	Da	ate started	Date obtained	Grade

If you have worked on a research project, either for your first degree or subsequently, please describe your work below; your account should be intelligible to anyone who is not a specialist in your field. If you have no such research experience, leave this space blank; a blank entry will not prejudice your application.

Title: Towards a macroscopic test of local realism using phase-space measurements

Time: May - July 2015

Abstract: During the summers, we* proposed a test of local realism, which was based on correlation measurements of continuum valued functions of positions and momenta, known as modular variables (they are the same as those considered in mathematics). The Wigner representations (it is a reformulation of QM, where 'probabilities' are assigned to each phase space point. However, to be consistent with QM, these 'probabilities' must be allowed to be negative) of these observables are bounded in phase space and, therefore, the associated inequality holds for any state described by a non-negative Wigner function. This agrees with Bell's remark that positive Wigner functions, serving as a valid probability distribution over local (hidden) phase-space coordinates, do not reveal nonlocality. We constructed a class of entangled states resulting in a violation of the inequality and thus truly demonstrated nonlocality in phase space. The states can be realized through grating techniques in spacelike separated interferometric setups. The nonlocality, we showed, can be verified from the spatial correlation data that is collected from the screens.

Link:(*) arXiv:1508.04588

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A(7) Scholarships, prizes and other distinctions obtained (list only the most important)

Name of award	Reason for award	Date of award	Value of award, if any
Certificate of Merit	Best Academic Performance	Aug 2015	
DAAD WISE	Academic Summer Germany	May 2015	1890
KVPY, India	Science Project Pursue Sc.	Apr 2011	3500

A(8) If you have made other applications to Cambridge this year, give details here

Degree	Programme of study / research	Department

A(9) If you have made applications to other institutions this year, give details here

Degree	Programme of study / research	Institution	Department	Country
PhD	Quantum Gravity	Oxford	Physics	United Kingdom
PhD	Quantum Gravity	Penn State	Physics	United States

A(10) Employment

From	То	Post Held	Name and Address of Employer	

Are you currently employed?	Yes	No	Χ

Will you be employed at least 40% full-time by the University of Cambridge while studying for this course?

A(11) Names and addresses of your academic referees

Prior to completing this section, please see the 'How to Apply' section of the Board's website for information regarding references. If your referees do not have e-mail addresses, please note that you are responsible for contacting them to request a reference.

There is an electronic reference system in place that will automatically contact your referees if you provide an email address for them.

	First academic referee	Second acad
Name	Otfried Guehne	Arvind Arvind
Title	Professor	Professor
Address	Emmy Noether Campus, University of Siegen	IISER Mohali, SAS Naga
	Walter-Flex-Strasse 3	Sector 81
Town or city	Siegen	Mohali
County/State or Province		
Country	Germany	India
Postal Code		
Email (University account where possible)	otfried.guehne@uni-siegen.de	arvind@iisermohali.ac.in

Second academic referee
Arvind Arvind
Professor
IISER Mohali, SAS Nagar
Sector 81
Mohali
India
arvind@iisermohali.ac.in

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A(12) Summary details of research proposal or reason for applying for the course

Title and statement of your research degree proposal, or reason for wanting to undertake the course. The Department to which you are applying may in addition require a separate, more detailed, research proposal; check the online Qualifications Directory for further information.

If you wish to work under a particular supervisor, state that person's name here:	Michael B Green
	Applicants for the PhD, MSc, MLitt or MPhil by Research only.
I am interested in working as a part of the "Theoretical High Energy Particle Physics G that string theory is still in its infancy and therefore not subject to experimental validatic particle physics, while developing the subject, is a more reasonable approach and one Please look at my SOP for details on my past experience and motivation.	on. Thus, exploring implications of string theory to, for example
A(13) Part-time research degrees (part-time applicants only)	
If you propose to study for a part-time research degree, please state your reason employment while studying, give details.	s for wishing to study part-time here. If you intend to remain in
This is not required since you have currently opted for Full-time study	
A(14) Additional information in support of your application	
You may write here your non-academic activities or any special circumstances no draw to the attention of the assessors of your application. The Department to which application, check the online Qualifications Directory for further information. If you to give more details of your achievements in a separate section.	ich you are applying may require a CV to be submitted with your
A(15) Career goals and future aspirations	
Please give an outline of your future career plans and intentions and explain how aims.	your proposed studies in Cambridge will help you achieve these
I intend to continue exploration of physics. Needless to say, a PhD from Cambridge we consequently, assist in obtaining further research positions, which will culminate into, research positions.	

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SECTION B: Application for funding (academic year 2016/17 ONLY)

Please use this form to indicate a need for funding - this will not affect the academic decisions about your admission to a degree. You can apply to the funding bodies listed below using this form; but please check their individual websites for full information about eligibility criteria.

Please select at least one tick box on this page.

If you already have funding available to you and <u>do not</u> wish to apply for funding from the funding
bodies below please tick this box and proceed to Section C

OR

If you do wish to apply for funding, please tick the relevant box(es) and complete any additional questions where required. Applicants may tick more than one box to apply to multiple funding bodies if they believe they are eligible.

Scholarship	Eligibility and deadline	How to apply	I wish to apply
Gates Cambridge	For citizens of countries outside the UK. Deadlines: 14 October 2015 (US citizens normally resident in the USA), 2 December 2015 (all other eligible applicants).	Tick box on the right and complete sections B1 and B2 below.	
Cambridge Trust (including central University funding competitions)	For citizens of countries outside the EU. Deadline: 2 December 2015	Tick box on the right and complete sections B3 and B4 below.	
Cambridge Trust (including central University funding competitions)	For citizens of countries within the EU (including UK). Deadline: 6 January 2016.	Tick box on the right and complete sections B3 and B4 below.	
Economic and Social Research Council	For UK and EU citizens applying for a research degree in economic and social research. Deadline: 6 January 2016.	Tick box on the right.	
Arts and Humanities Research Council	For UK and EU citizens applying for a research degree in arts and humanities. Deadline: 6 January 2016.	Tick box on the right.	
Other Research Councils (BBSRC, EPSRC, MRC, NERC and STFC)	For UK and EU citizens applying for a research degree in these subject areas. Deadlines are varied and awards are administered by individual departments.	Tick box on the right and enquire with your department about the application procedure.	

Other funding: in addition to the funding bodies listed above, there are numerous other funding opportunities for postgraduate study and research at Cambridge. Many of these can be found on the University's Graduate Funding page, although applicants should also check with individual departments and Colleges about funding they may offer.

Supporting documentation: please note that after submitting the application form by the required deadline, you have a further 14 days to submit the required supporting documentation.

B(1) Gates Cambridge Scholarships

In not more than 500 words please explain why you are applying for a Gates Cambridge Scholarship and how you meet the four main criteria. Full
details about how to apply, including selection criteria and guidance on completing this personal statement, can be found at
http://www.gatescambridge.org/apply/.

ans about now to apply, including selection criteria and guidance on completing this personal statement, can be found at p://www.gatescambridge.org/apply/.				

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B(2) Details of your personal referee for the Gates Cambridge Scholarship

Your personal referee should be someone of appropriate standing who can comment on your suitability for a Gates Cambridge Scholarship (e.g. an academic or employer who can comment on your academic ability, leadership capacity and commitment to improving the lives of others). For full details see http://www.gatescambridge.org/apply/how-apply/personal-reference.

The personal referee should not be a family member, a friend, or yourself.

Name		Title (Mr/Mrs/Miss/Dr etc.)	
Address			
Town or city			
County/State or Province			
Country			
Postal Code			
Email			
Re-enter Email to Confirm			
B(3) Cambridge Trust			
financial need. Please give re yourself eligible; see the Schol	words). The Cambridge Trust offers scholarship easons why you believe you should be consid larships section of www.cambridgetrust.org for der organisations of the Trust. Instructions and link	ered for a scholarship and letails. Note that some schola	mention those for which you conside
I			

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B(4) Financial details for the Cambridge Trust

You will need to consult the following webpa www.admin.cam.ac.uk/students/gradadmiss	ge for estimated course costs:	· ·		
University Composition Fee (annual amount) £				0
Ma	ntenance allowance (minimum annual	amount) £		0
Total estin	nated <u>annual</u> financial commitment r	required £		0
Funds you are <u>confident</u> of raising <u>annual</u> . Please give as much detail as possible of the when making decisions on scholarships and t conversion site such as <u>www.xe.com</u> or <u>www</u>	funds you are able to raise annually. Nor no other purpose. If you need to con			
Source	Details		£ per y	/ear
Scholarships and grants Please give details of any scholarships and/or grants that you have secured for your course at Cambridge			£	0
Personal funds Please give the source(s) and amount(s) of any personal funds you are able to contribute towards the cost of your course (e.g. income, savings, capital, etc)			£	0
Other funds Please give the source(s) and amount(s) of any other funds you are able to contribute towards the cost of your course			£	0
Tot	al funds available annually towards	the cost of your cours	se £	0
Annual shortfall, if any, b	etween the total funds available and	the cost of your cours	se £	0
Please give details of any scholarships ter	nable at Cambridge which you have	applied for (or plan to	apply for)	
Awarding body	Date	e of decision	Tenure (years)	Annual Value £

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FULL NAME

SECTION C

C(1) Next of kin

Name	Tejinder Kaur	
Address	4317/3 Ansari Road	
	Darya Ganj	
Town or city	New Delhi	
County, province or state		
Postcode/Country	110002 India	
Telephone	+919999872235	

C(2) How did you hear about graduate programmes at Cambridge?

e.g. Prospectus, Internet, British Council, Careers Service etc (please specify)

Internet

C(3) Declaration and Data Protection

This document forms the legal basis of your application to Cambridge. We reserve the right to refuse admission in the event of any misrepresentation by you. Submission of an application does not imply an offer of admission. Read the following statement carefully before you submit your application.

- I certify that all the information given in this application is complete and accurate, and I understand that if I have given false or misleading information the University of Cambridge will not admit me as a Graduate or Postgraduate student, and may take legal action against me.
- I certify that I am the original and sole author of all work submitted as part of this application, except where clearly indicated otherwise.
- 3. I understand that if my application is unsuccessful, the documents relating to it will be destroyed, and cannot be returned.
- 4. DATA PROTECTION ACT (1998)

The University of Cambridge, the Cambridge Colleges, Gates Cambridge and the Cambridge Commonwealth, European and International Trust will process your personal data (as defined by the Data Protection Act 1998) for the purpose of processing your applications for admission and funding, including as described on the two Parts of the Personal Data Sheet below:

- we may keep a copy of information provided in respect to your application and use the information to collect anonymised statistics or monitor equal opportunities (or both);
- we may use or disclose information provided in respect of your application for research purposes, but no information which could identify you will be published;
- we will confirm that you are an applicant or student to banks and other third party organisations, as requested by you in writing;
- we will share your information as necessary with your referees; the appropriate staff at the Cambridge Colleges, the Cambridge Trust and Gates Cambridge and the University; your current and former educational institutions; the Student Loans Company; and in the case of international applicants, the British Council or appropriate agency;
- in order to prevent or detect fraud, we may provide information from your application to outside organisations including the police, the Home Office, local authorities, examination boards or awarding bodies, and the Department for Work and Pensions and its agencies;
- where relevant and as required, we will provide information from your application to UK Visas and Immigration in order to act as your sponsor for visa purposes;
- if accepted, we will further use your personal data in any manner and for any purposes described on the relevant <u>Student Gateway</u> pages, as published on the University website and amended from time to time;
- if accepted, we will return data about you to the Higher Education Statistics Agency (as described at the following website: http://www.hesa.ac.uk/collection-notices) and other external agencies as required;
- if accepted, and if you subsequently apply to continue as a graduate student, all of the material contained in your current application (with the exception of Part 2 of the Personal Data Sheet) will be made available to the parties mentioned above, alongside your continuation application.

NAME (PRINT)	SIGNATURE	DATE (DD/MM/YYYY)

Personal Data Sheet



The Personal Data Sheet is circulated to departments along with the rest of your application, but information on this sheet will not be considered when making the academic decision on whether to make an offer of admission. The sheet is circulated because if you do declare a disability in Section (2) below, it may be helpful for your department to know this in the event that they wish to organise an interview, so that any relevant adjustments can be made. If you are made a conditional offer, this sheet will also be sent to Colleges that consider your application. See the Board's website for further information about support for disabled students.

Note: there are two sides to this form.

Name (legal)	Arora		Atul Singh			Mr
()	Last (family)		First and middle		Title (Mr/Mrs/Miss/Dr etc)	
(1) Abo	ut your family while you are in C	ambridge				
•	give details here by ticking the appunt of maintenance required for each.	•	0 0	•	•	•
Χ	I will be unaccompanied					
	I shall bring a partner or spouse	Name of partner of	r spouse*:			
		Is he/she also app	lying for graduate study a	at Cambridge? (ti	ck box)	
		*If your partner is eith they have used in the	ner an applicant to the Unive eir application.	rsity of Cambridge o	or already in residence	e, please give the name
	I shall bring one child	Date of birth:		(DD/MM/YY	YY)	
	I shall bring a second child	Date of birth:		(DD/MM/YY	YY)	
	I shall bring a third child	Date of birth:		DD/MM/YY	YY)	
Will all th	he people indicated be financially	dependent on you?	Yes No	If no, please	give details below:	
	port needs relating to disability		isability, special needs o	r a medical condi	ition, use code 00	('I have no disability'). If
	not wish to provide any information				, 400 0040 00	(1.1.4.6.1.6.4.1.4.1.4.1.4.1.4.1.4.1.4.1.
individua conditio	ne Equality Act 2010, a disability is al's ability to carry out normal day n which is likely to require addition bleting this section you will be put effectively. The Disability Resource	to day activities. We all support during the in contact with the D	invite disclosure from an eir time at Cambridge.	yone who feels the state of the	ney may have a dis	ability or other
to study	effectively. The Disability Resource	e Centre works clos	ely with the Board of Gra	duate Studies Ad	imissions Office.	
X	I have no known disability (00)	condi	e a long standing illness tion such as cancer, HIV ic heart disease, or epile	, diabetes,		have a serious visual rrected by glasses (58)
	I have two or more impairments disabling medical conditions (08)	depre depre	e a mental health conc ession/schizophrenia/anxi der) (55)	lition (e.g.	I have a disability medical condition	v, impairment or n not listed above (96)
	I have a Specific Learning Difficult Dyslexia/Dyspraxia/AD(H)D (51)	issue issue	e a physical impairment s (e.g. difficulty using arr Ichair or crutches) (56)		Information refus	ed (97)
	I have a social/communication impairment such as Asperger's syndrome/other autistic spectrum disorder (53)		deaf or have a seriou rment (57)	s hearing	Not known (99)	

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Signature	Date