BRÅKET

Information om seminarier och högre undervisning i matematiska ämnen i Stockholmsområdet

BRÅKET

Disputation i matematik

Jonas Hägg disputerar vid KTH på avhandlingen *Gaussian fluctuations in some determinantal processes* fredagen den 4 maj kl. 14.00. Se sidan 7.

Money, jobs: Se sidorna 9–10.

SEMINARIER

Fr 04–20 kl. 11.00–12.00. Optimization and Systems Theory Seminar. Martin Enqvist, Linköpings universitet: *Approximate nonlinear system identification: Input distributions and reweighting approaches.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se Bråket nr 13 sidan 6.

Fr 04–20 kl. 12.00–13.00. GRU-seminarium i matematik: *Presentation av modelltentamina.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se sidan 4.

Fr 04–20 kl. 13.15–14.15. Graduate Student Seminar. Joakim Arnlind, Matematik, KTH: *The Diamond lemma.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se Bråket nr 13 sidan 5.

Ti 04–24 kl. 10.15. Plurikomplexa seminariet. Håkan Samuelsson, Wuppertal: *Regularizations of residue currents.* Rum 306, hus 6, Matematiska institutionen, SU, Kräftriket. Se sidan 5.

On 04–25 kl. 10.30. Logikseminariet Stockholm-Uppsala. Richard Garner: *A taxonomy of fibrations.* Sal 11167, Ångströmlaboratoriet, Uppsala universitet. Se sidan 6.

On 04–25 kl. 11.00–12.00. Common SU KoF/KTH Theoretical Physics Seminar. Johan Grundberg, Mälardalens högskola: *"Ultimately equal".* *Newton and the notion of limit.* Sal FB55, Roslagstullsbacken 21, AlbaNova universitetscentrum. Se Bråket nr 14 sidan 6.

Fortsättning på nästa sida.

Miniworkshop in PDE and Potential Theory

Denna äger rum torsdagen den 3 maj vid Matematiska institutionen, SU. Se sidan 7.

Seminarier (fortsättning)

On 04−25 kl. 13.00. Seminarium i statistik. Birgit Strikholm, Handelshögskolan i Stockholm: *Determining the number of breaks in a piecewise linear regression model.* Sal B705, Statistiska institutionen, SU, Universitetsvägen 10B, plan 7, Frescati.

On 04−25 kl. 13.15−14.15. Seminarium i analys och dynamiska system. Jonas Hägg, KTH: *Gaussian fluctuations in the Airy and GUE point processes.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se sidan 5.

On 04−25 kl. 13.15. Seminarium i teoretisk datalogi. Michel Schellekens, Centre for Efficiency-Oriented Languages, University College Cork: *Towards the Engineering of Modular Software for Increased Predictability.* Rum 1537, KTH CSC, Lindstedtsvägen 3, plan 5. Se Bråket nr 14 sidan 9.

On 04−25 kl. 15.00−15.45. Seminarium i matematisk statistik. Juni Palmgren, SU: *On the use of Mendelian randomization in epidemiologic research.* Rum 306 (Cramérrummet), hus 6, Matematiska institutionen, SU, Kräftriket. Se sidan 3.

On 04−25 kl. 16.00−17.00. KTH/SU Mathematics Colloquium. Svante Linusson, Matematik, KTH: *Combinatorial and topological fix-point theorems.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Kaffe/te serveras kl. 15.30 i pausrummet, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 4. Se Bråket nr 14 sidan 10.

To 04−26 kl. 14.00−15.00. Mittag-Leffler Seminar. Robin de Jong, Leiden University: *Gauss map on the theta divisor and moduli of abelian varieties.* Institut Mittag-Leffler, Auravägen 17, Djursholm. Se sidan 4.

To 04−26 kl. 14.00−16.00. Kollokvium i filosofi. Crispin Wright, St. Andrews: *New Age Relativism and Epistemic Possibility: the Question of Evidence.* Rum D307, Filosofiska institutionen, SU.

To 04−26 kl. 15.15−16.30. AlbaNova and Nordita Colloquium in Physics. Eleonor Campbell, Institutionen för fysik, Göteborgs universitet: *Nanocarbon materials: From football molecules to the space elevator.* Oskar Kleins auditorium, Roslagstullsbacken 21, AlbaNova universitetscentrum. Se Bråket nr 14 sidan 10.

Fr 04−27 kl. 10.00−12.00. Högre seminarium i språkfilosofi och logik. Crispin Wright, St. Andrews, presents: *On Quantifying Into Predicate Position: Steps Towards a New(tralist) Perspective.* Rum D700, Filosofiska institutionen, SU.

Fr 04−27 kl. 13.15−14.15. Graduate Student Seminar. Martin Blomgren, Matematik, KTH: *Classification of two-dimensional topological manifolds.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se sidan 6.

On 05−02 kl. 11.00−12.00. Common SU KoF/KTH Theoretical Physics Seminar. Göran Lindblad, KTH: *Reconstruction of quantum states as an inverse problem.* Sal FA31, Roslagstullsbacken 21, AlbaNova universitetscentrum. Se sidan 5.

Seminarier (fortsättning)

On 05−02 kl. 13.15−14.15. Seminarium i analys och dynamiska system. Professor Alexander Soshnikov, Department of Mathematics, University of California, Davis, USA: *On spectral radius of Wigner random matrices with non-symmetrically distributed entries.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se sidan 6.

Professor Soshnikov är opponent vid Jonas Häggs disputation. Se sidan 7.

On 05−02 kl. 15.15−16.00. Seminarium i numerisk analys. Andreas Atle: *Title to be announced.* Rum 4523, KTH CSC, Lindstedtsvägen 5, plan 5.

On 05−02 kl. 16.00. KTH/SU Mathematics Colloquium. Alain Albouy, Paris 7: *Central configurations and upper bounds for the number of solutions of an equation.* Sal 14, hus 5, Matematiska institutionen, SU, Kräftriket.

On 05−02 kl. 19.00. Populärvetenskaplig föreläsning i fysik. Dr Alexis Brandeker, University of Toronto, Canada: *Att resa mellan stjärnorna: Om hur mycket Star Trek tummar på verkligheten.* Oskar Kleins auditorium, Roslagstullsbacken 21, AlbaNova universitetscentrum. Se sidan 8.

To 05−03 kl. 15.15−16.15. AlbaNova and Nordita Colloquium in Physics. Erland Källén, Meteorologiska institutionen, SU: *A warming world — why and what will the consequences be?* Oskar Kleins auditorium, Roslagstullsbacken 21, AlbaNova universitetscentrum. Se sidan 4.

Fr 05−04 kl. 11.00−12.00. Optimization and Systems Theory Seminar. Olaf Schenk, Universität Basel, Schweiz: *Inertia revealing preconditioning for large-scale nonconvex optimizations in biomedical cancer therapy.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se sidorna 8−9.

Fr 05−04 kl. 13.15−14.15. Graduate Student Seminar. Douglas Lundholm, Matematik, KTH: *Title to be announced.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7.

SEMINARIUM I MATEMATISK STATISTIK

Juni Palmgren:

On the use of Mendelian randomization in epidemiologic research

Abstract: A fundamental problem in observational epidemiology is the fact that association does not imply causation. If two variables are associated, it may be unclear which of the two is the cause and which is the effect, or whether both are effects of other unobserved variables. In contrast, the problems of reverse causality and confounding are highly unlikely in controlled experiments, where treatments are randomly allocated to units. The method of Mendelian randomization exploits the fact that genes are inherited by a seemingly random process, and that a carefully selected genotype may serve as an instrumental variable in assessing the effect of exposure on disease in the presence of unobserved confounders. I will present examples of the use of Mendelian randomization, discuss underlying assumptions, and point at limitations and possible extensions of the basic method.

Tid och plats: Onsdagen den 25 april kl. 15.00−15.45 i rum 306 (Cramérrummet), hus 6, Matematiska institutionen, SU, Kräftriket.

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GRU-SEMINARIUM I MATEMATIK
Presentation av modelltentamina

Sammanfattning: Vid detta seminarium skall grupperna i flervariabelanalys och differentialekvationer presentera sina modelltentamina, framtagna efter internatet på Tammsvik.

Bakgrunden är att vi ju nästa läsår skall examinera mot nyskrivna kursmål och dessutom sätta betyg enligt ett nytt betygssystem. Hur detta kan göras i praktiken skall vi alltså se ytterligare några exempel på.

Den som anmäler sig till Lars Filipsson (lfn@math.kth.se) senast kvällen före seminariet får en lunchsmörgås.

Tid och plats: Fredagen den 20 april kl. 12.00 – 13.00 i seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7.

MITTAG-LEFFLER SEMINAR
Robin de Jong:
Gauss map on the theta divisor and moduli of abelian varieties

Abstract: In a work of Debarre on the Andreotti-Mayer locus of principally polarized abelian varieties with singular theta divisor, the ramification locus of the Gauss map on the theta divisor plays an important auxiliary role. Several generic results are proved on its scheme structure, but without the use of explicit equations. In this talk we will discuss such equations, involving theta functions and their derivatives. We give some applications, including a recent result of Grushevsky and Salvati Manni.

Tid och plats: Torsdagen den 26 april kl. 14.00 – 15.00 vid Institut Mittag-Leffler, Auravägen 17, Djursholm.

ALBANOVA AND NORDITA COLLOQUIUM IN PHYSICS
Erland Källén:
A warming world — why and what will the consequences be?

Abstract: The world is getting warmer, globally averaged surface temperatures have increased substantially over the past 100 years and much of this can be associated with an increased greenhouse effect. The increased greenhouse effect is caused by accelerating concentrations of greenhouse gases in the atmosphere, in particular carbon dioxide resulting from man-made burning of fossil fuels. In the future we can expect further increases of carbon dioxide concentrations, compared to pre-industrial times the concentration is likely to increase by 100 % or more within the coming century. The implications for global climate are quite dramatic. Using basic laws of physics we can construct climate models that can be used to estimate future climate change. The estimates are associated with a large uncertainty, but nevertheless we may conclude that a continued global warming is very likely to occur. The magnitude depends on how successful we will be in decreasing future emissions of carbon dioxide.

Tid och plats: Torsdagen den 3 maj kl. 15.15 – 16.15 i Oskar Kleins auditorium, Roslagstullsbacken 21, AlbaNova universitetscentrum.

PLURIKOMPLEXA SEMINARIET

Håkan Samuelsson:
Regularizations of residue currents

Abstract: This talk is on a joint project with Jan-Erik Björk. Given a $p+q$-tuple, $f = (f_1, \ldots, f_{p+q})$, of holomorphic functions defining a complete intersection, there is a well-defined associated residue current, $R^p P^q[1/f]$, of the Coleff-Herrera-Passare type. In this talk I will try to prove a rather general regularization result saying that $R^p P^q[1/f]$ can be obtained as the unrestricted limit of a smooth form depending on $p+q$ parameters. By examples of Passare-Tsikh and Björk, one knows that the residue integral associated to f in general does not have an unrestricted limit. But what this result would say is that a mild average of the residue integral has an unrestricted limit, and it would thus give a more robust approach to Coleff-Herrera-Passare type currents.

Tid och plats: Tisdagen den 24 april kl. 10.15 i rum 306, hus 6, Matematiska institutionen, SU, Kräftriket.

SEMINARIUM I ANALYS OCH DYNAMISKA SYSTEM

Jonas Hägg:
Gaussian fluctuations in the Airy and GUE point processes

Abstract: The Gaussian unitary ensemble (GUE) is a classical random matrix. It is an $n \times n$ Hermitian matrix such that the n^2 real and imaginary parts, on and above the diagonal, are independent and $N(0, (1+\delta_{ij})/4)$ distributed. The seminar will concern the $n \to \infty$ limit distribution of the kth largest eigenvalue of the GUE.

Tid och plats: Onsdagen den 25 april kl. 13.15 – 14.15 i seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7.

COMMON SU KOF/
KTH THEORETICAL PHYSICS SEMINAR

Göran Lindblad:
Reconstruction of quantum states as an inverse problem

Abstract: Given the outcomes of a generalized measurement performed on an ensemble of N independent and identically prepared quantum systems, how do we best estimate the quantum state? We want to use the data as efficiently as possible, but as with other "inverse problems" such estimates are nonlinear in the data and can easily amplify the N-ensemble fluctuations to create spurious features in the solution, called "overfitting". I will sketch an iterative algorithm based on convex optimization and show some results of computer simulations. The simulations suggest a rule for terminating the iteration for a pretty good estimation of the state without overfitting (in the real world where we do not know the state). They also indicate that the accuracy is as good as we can expect for for a given measurement and a given N.

Tid och plats: Onsdagen den 2 maj kl. 11.00 – 12.00 i sal FA31, Roslagstullsbacken 21, AlbaNova universitetscentrum.

LOGIKSEMINARIET STOCKHOLM-UPPSALA

Richard Garner:
A taxonomy of fibrations

Abstract: There are a variety of natural "lifting" properties that one may require of a functor between categories. The best-known is Grothendieck's notion of fibration; but one may also be interested in the discrete fibrations, the isofibrations, the prefibrations or the Conduché fibrations. The purpose of this talk is to describe these and their relation to each other. A useful organizing tool to do this will be the correspondence between Grothendieck fibrations and indexed categories; a correspondence that admits generalization to the other forms of fibrational structure which we consider.

Tid och plats: Onsdagen den 25 april kl. 10.30 i sal 11167, Ångströmlaboratoriet, Uppsala universitet.

GRADUATE STUDENT SEMINAR

Martin Blomgren:
Classification of two-dimensional topological manifolds

Abstract: The classification of two-dimensional topological manifolds is one of the early, and indeed classical, conquests of the methods of algebraic topology. In this general educative talk it is shown that the class of two-dimensional connected compact manifolds, that is to say the class of compact surfaces, has a most singularly simple characterization. Indeed, any compact surface is homeomorphic to a 2-sphere or to a finite connected sum of tori or to a finite connected sum of projective planes. Only a minimum of point set topology is required.

Tid och plats: Fredagen den 27 april kl. 13.15 – 14.15 i seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7.

SEMINARIUM I ANALYS OCH DYNAMISKA SYSTEM

Alexander Soshnikov:
On spectral radius of Wigner random matrices
with non-symmetrically distributed entries

Abstract: In the first part of the talk, I will show that the spectral radius of an $N \times N$ random symmetric matrix with i.i.d. bounded centred but non-symmetrically distributed entries is bounded from above by $2\sigma + o(N^{-6/11+\varepsilon})$, where σ^2 is the variance of the matrix entries and ε is an arbitrary small positive number. Our bound improves the earlier results by Z. Füredi and J. Komlós (1981), and van Vu (2005). Our approach relies heavily on combinatorial considerations. This is a joint work with Sandrine Peche.

In the second part of the talk, I will discuss a resolvent approach to study the universality at the edge of the spectrum.

Tid och plats: Onsdagen den 2 maj kl. 13.15 – 14.15 i seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7.

MINIWORKSHOP IN PDE AND POTENTIAL THEORY

The workshop will take place at the Department of Mathematics, Stockholm University, on Thursday, May 3, 2007, in room 306, house 6, Kräftriket.

Schedule

10.00 – 10.50 **Sara Maad,** Stockholm University: *Persistence of embedded eigenvalues.*
Abstract: Perturbation problems for embedded eigenvalues are challenging in general, since such eigenvalues cannot be separated from the rest of the spectrum. Classical perturbation theory shows that isolated eigenvalues persist under small perturbations. In contrast to this result, it is known that for a large class of operators the embedded eigenvalues disappear under arbitrarily small generic perturbations.
In this talk I will show how this can be understood for the example of the bilaplacian on a cylinder in $\mathbb{R}^3$. We will also see that in this case the set of perturbations for which the embedded eigenvalue persists is a manifold of finite codimension.

11.00 – 11.50 **Michel Willem,** Université Catholique de Louvain: *Least energy nodal solutions of semilinear elliptic problems.*
Abstract: We consider existence and symmetry properties of least energy nodal solutions of semilinear elliptic problems. Direct methods and minimax theorems are used for subcritical and for critical problems.

11.50 – 13.10 Lunch.

13.10 – 14.00 **Inwon Kim,** UCLA: *Regularity and monotonicity of one-phase Hele-Shaw flow.*
Abstract: In this talk we will discuss regularization of one-phase Hele-Shaw flow, starting from initially Lipschitz surface. We show that if the Lipschitz constant of the initial free boundary is small, then for small positive time the solution of (HS) is smooth and solves (HS) in the classical sense. Global and local version of the result will be presented with estimates on the free boundary speed in terms of the initial data. Existence, uniqueness and monotonicity properties of global Hele-Shaw flow will follow. This is joint work with Sunhi Choi and David Jerison.

14.10 – 15.00 **Jan Chabrowski,** University of Queensland: *Critical Neumann problem.*
Abstract: I will discuss the existence and the properties of least energy solutions of a semilinear Neumann problem. The main focus is on the joint effect of the shape of the graph of coefficients of the critical nonlinearities and the geometry of the boundary on the existence of solutions.

Henrik Shahgholian   Andrzej Szulkin

DISPUTATION I MATEMATIK

Jonas Hägg

disputerar på avhandlingen

Gaussian fluctuations in some determinantal processes

fredagen den 4 maj 2007 kl. 14.00 i sal F3, KTH, Lindstedtsvägen 26, b.v. Till opponent har utsetts *professor Alexander Soshnikov,* Department of Mathematics, University of California, Davis, USA.

POPULÄRVETENSKAPLIG FÖRELÄSNING I FYSIK

Alexis Brandeker:
Att resa mellan stjärnorna:
Om hur mycket Star Trek tummar på verkligheten

Sammanfattning: Många är vi välbekanta med rymdfärder mellan stjärnor så som de beskrivs i "science-fiction"-serier som Star Trek. Hjältarna tittar ut genom rymdskeppets fönster och ser stjärnor blixtra förbi. Men om vi antar att det gick att bygga rymdskepp som färdades i farter nära ljusets, hur skulle astronauterna uppleva resan i verkligheten? För att svara på frågan tar vi hjälp av planetarieprogrammet StarStrider, som bland annat kan simulera rymdfärder i relativistiska farter.

Tid och plats: Onsdagen den 2 maj kl. 19.00 i Oskar Kleins auditorium, Roslagstullsbacken 21, AlbaNova universitetscentrum.

OPTIMIZATION AND SYSTEMS THEORY SEMINAR

Olaf Schenk:
Inertia revealing preconditioning for large-scale
nonconvex optimizations in biomedical cancer therapy

Abstract: We propose an inertia revealing preconditioning approach for the solution of nonconvex constrained optimization problems. If interior methods with second-derivative information are used for these optimization problems, a linearized Karush-Kuhn-Tucker system of the optimality conditions has to be solved. The main issue addressed is how to ensure that the Hessian is positive definite in the null-space of the constraints while neither adversely affecting the convergence of Newton's method or incurring a significant computational overhead. In the nonconvex case, it is of interest to find out the inertia of the current iteration system so that the matrix may be modified a posteriori to obtain convergence to a minimum. However, in order not to destroy the rapid convergence rate of the interior method, the modification has only to be performed in the cases where the inertia is not correct, and factorization methods [3, 4] are very often used in order to compute the inertia information. In this work, we propose a new inertia revealing preconditioned Krylov iteration to solve the linearized Karush-Kuhn-Tucker system of optimality conditions. Our preconditioning approaches for the symmetric indefinite Karush-Kuhn-Tucker systems are based on maximum weighted matchings and algebraic multi-level incomplete LBL^T factorizations [1, 2]. Finally, we present numerical results on several large-scale three-dimensional examples of PDE-constrained optimizations in the full space of states, control and adjoints variables with equality and non-equality constraints and test them with artificial as well as clinical data from biomedical cancer hyperthermia treatment planning.

References:

[1] M. HAGEMANN and O. SCHENK, *Weighted matchings for the preconditioning of symmetric indefinite linear systems,* SIAM Journal of Scientific Computing, Vol. 28 (2006), pp. 403 – 420.

[2] O. SCHENK, M. BOLLHOEFER, and R. ROEMER, *On large-scale diagonalization techniques for the Anderson model of localization,* SIAM Journal of Scientific Computing, Vol. 28 (2006), pp. 963 – 983.

[3] O. SCHENK and K. GAERTNER, *On fast factorization pivoting methods for symmetric indefinite systems,* Electronic Transaction of Numerical Analysis, Vol. 23 (2006), pp. 158 – 179.

[4] O. Schenk, A. Waechter, and M. Hagemann, *Matching-based preprocessing algorithms to the solution of saddle-point problems in large-scale nonconvex interior-point optimization,* Journal of Computational Optimization and Applications, Vol. 36, Numbers 2–3, April 2007, pp. 321–341.

Tid och plats: Fredagen den 4 maj kl. 11.00–12.00 i seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7.

MONEY, JOBS

Columnist: Eric Emtander, Department of Mathematics, SU. E-mail: erice@math.su.se.

Info = information. This will be given and repeated until obsolete. Rely on other sources as well.
BBKTH = Bulletin Board at the Department of Mathematics, KTH.
BBSU = Bulletin Board at the Department of Mathematics, SU.
The following information, with links, is also available at http://www.math.su.se/~erice/mj.html.
Unless stated otherwise, a given date is the last date (e.g. for applications), and the year is 2007. A number without an explanation is a telephone number.

Standard information channels

1. A channel to information from Vetenskapsrådet: http://www.vr.se/naturteknik/index.asp.

2. A channel to information from the European Mathematical Society: http://www.emis.de.

3. A channel to information from the American Mathematical Society: http://www.ams.org.

4. KTH site for information on funds: http://www.kth.se/aktuellt/stipendier.

5. Stockholm University site for information on funds: http://www2.su.se/forskning/stipendier/databas.php3.

6. Umeå site for information on funds: http://www.umu.se/umu/aktuellt/stipendier_fond_anslag.html.

7. Job announcement site: http://www.maths.lth.se/nordic/Euro-Math-Job.html. This is run by the European Mathematical Society.

8. Stiftelsen för internationalisering av högre utbildning och forskning (STINT) site for information on funds: http://www.stint.se.

9. Nordisk Forskerutdanningsakademi (NorFA) site for information on funds: http://www.norfa.no.

10. Svenska institutet (SI) site for information on funds: http://www.si.se.

New information

Jobs to apply for

11. École Normale Supérieure, Paris, utlyser ett 9 månader långt postdoctoral fellowship i matematik med början tidigast den 1 oktober. Sista ansökningsdag är den 15 maj. Web-info: http://www.dma.ens.fr/international/ENIGMA.html.

12. KTH ledigförklarar ett antal anställningar som doktorand i matematik. Sista ansökningsdag är den 11 maj. Web-info: http://www.math.kth.se/utlysning.tjanst/utlysn.doktorand.html.

Old information

Money to apply for

13. Letterstedtska föreningen utdelar anslag för att befordra gemenskapen mellan de fem nordiska länderna på industrins, vetenskapens och konstens områden. Ansökan om anslag skall insändas före den 15 september. Web-info: http://www.letterstedtska.org/.

14. Sweden-Japan Foundation utlyser stipendier för studier, forskning samt examensarbete och praktik på högskolenivå i Japan. Ansökningsdagar är den 1 mars och den 1 oktober. Web-info: http://www.swejap.a.se/.

15. Wenner-Gren Stiftelserna delar ut stipendier för att möjliggöra för svenska disputerade forskare att verka vid utländsk vetenskaplig institution. Sista ansökningsdag är den 1 oktober. Stipendierna beviljas för en tid av lägst 1 och högst 12 månader med möjlighet till förlängning till högst 24 månader. Web-info: http://www.swgc.org/index.aspx?pageID=14.

(Continued on the next page.)

Jobs to apply for

16. Göteborgs universitet utlyser doktorandtjänster i matematik och fysik — MP2 forskningsplattform, med placering antingen vid Matematiska vetenskaper eller vid Institutionen för fysik. MP2, Plattform för matematik och fysik, är ett nytt forskningsprogram finansierat av den Naturvetenskapliga fakulteten vid Göteborgs universitet. Syftet är att bygga upp en avancerad forskning kring studiet av matematiska strukturer i teorier för kvantsystem. Sista ansökningsdag är den 23 april. Web-info: http://ledig-anstallning.adm.gu.se/.

17. School of Mathematical Sciences, University College Dublin, utlyser en postdoktjänst inom projektet "Potential Theory and Quadrature Domains". I utlysningen står: "Quadrature domains are domains in Euclidean space over which the integrals of harmonic functions can be computed by integration with respect to a measure that has compact support. They arise naturally in many areas of the mathematical sciences and are the subject of significant contemporary research activity." För vidare information, kontakta Björn Gustafsson, gbjorn@kth.se, vid KTH eller Stephen Gardiner (se nedan). Ansökan innehållande CV, publikationslista, beskrivning av matematiska intressen samt kontaktinformation och två angivna referenspersoner skickas till: Professor Stephen J. Gardiner, UCD School of Mathematical Sciences, Belfield, Dublin 4, Ireland. Fax: +353-1-716 11 96. E-post: stephen.gardiner@ucd.ie. Web-info: http://maths.ucd.ie/~sjg/.

18. Växjö universitet söker en biträdande lektor i matematik med inriktning mot matematikdidaktik. Sista ansökningsdag är den 2 maj. Web-info: http://www.offentligajobb.se/ojcustomer/vaxjo_universitet/ext/ShowAdd.aspx?ID=83548.

19. Lunds universitet söker en universitetslektor i matematisk statistik. Sista ansökningsdag är den 25 april. Web-info: http://www3.lu.se/info/lediga/admin/document/PA%202007-909.pdf.