BRÅKET

Information om seminarier och högre undervisning i matematiska ämnen i Stockholmsområdet

NR 7 **FREDAGEN DEN 22 FEBRUARI 2008**

BRÅKET

Veckobladet från Institutionen för matematik vid Kungl Tekniska Högskolan och Matematiska institutionen vid Stockholms universitet

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Sista manustid för nästa nummer:
Torsdagen den 28 februari kl. 13.00.

Disputation i teoretisk fysik

Michael Gustafsson disputerar vid SU på avhandlingen *Light from Dark Matter: Hidden Dimensions, Supersymmetry, and Inert Higgs* fredagen den 29 februari kl. 10.15 i sal FD5, Roslagstullsbacken 21, AlbaNova universitetscentrum. Se Bråket nr 6 sidan 7.

Money, jobs: Se sidorna 9 – 10.

SEMINARIER

Fr 02–22 kl. 13.15 – 14.15. Graduate Student Seminar. Anna Sakovich, Matematik, KTH: *Harmonic morphisms from the classical semisimple Lie groups.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se Bråket nr 6 sidan 5.

Fr 02–22 kl. 14.00. Docentföreläsning i mekanik. Luca Brandt, Mekanik, KTH: *Boundary layer receptivity.* Sal D32, KTH, Lindstedtsvägen 5, b.v.

Fr 02–22 kl. 14.30 – 15.30. Minicourse in mathematics. Timothy Logvinenko: *Derived categories and their applications in algebraic geometry. First lecture.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se Bråket nr 6 sidan 6.

Ti 02–26 kl. 10.00 – 10.50. Miniworkshop in PDE and Potential Theory. Tobias Weth, Universität Giessen: *Symmetry and Liouville type theorems for some higher order Dirichlet problems.* Sal 16, hus 5, Matematiska institutionen, SU, Kräftriket. Se Bråket nr 6 sidan 8.

Ti 02–26 kl. 11.00 – 11.50. Miniworkshop in PDE and Potential Theory. Shoyeb Waliullah: *Minimizers for non-compact weighted Sobolev embeddings.* Sal 16, hus 5, Matematiska institutionen, SU, Kräftriket. Se Bråket nr 6 sidan 8.

Fortsättning på nästa sida.

Miniworkshop in PDE and Potential Theory

Denna äger rum vid SU tisdagen den 26 februari. Se Bråket nr 6 sidan 8.

Doktorandstudiecirkel

Tom Britton: Skriva och presentera matematik/statistik. Se sidan 6.

Seminarier (fortsättning)

Ti 02–26 kl. 13.30–14.20. Miniworkshop in PDE and Potential Theory. Farid Bozorgnia: *Numerical algorithms for the spatial segregation of competitive systems.* Sal 16, hus 5, Matematiska institutionen, SU, Kräftriket. Se Bråket nr 6 sidan 8.

Ti 02–26 kl. 14.00–15.00. Mittag-Leffler Seminar — Plurikomplexa seminariet. Lê Hai Khôi, Vietnam Academy of Science and Technology, Hanoi: *Weakly sufficient sets for* $A^{-\infty}(\mathbb{B})$. Institut Mittag-Leffler, Auravägen 17, Djursholm. Se sidan 4.

Ti 02–26 kl. 14.30–15.20. Miniworkshop in PDE and Potential Theory. Anders Edquist: *A two-phase obstacle-type problem for the p-Laplacian.* Sal 16, hus 5, Matematiska institutionen, SU, Kräftriket. Se Bråket nr 6 sidan 8.

Ti 02–26 kl. 15.30–16.30. Mittag-Leffler Seminar — Plurikomplexa seminariet. Christophe Mourougane, Université Rennes 1: *The geometry of positive vector bundles.* Institut Mittag-Leffler, Auravägen 17, Djursholm. Se sidan 3.

On 02–27 kl. 10.15–12.00. Kombinatorikseminarium. Eric Emtander, SU: *d-flag complexes and chordal hypergraphs.* Seminarierum 3733, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se sidan 8.

On 02–27 kl. 11.00–12.00. KTH/Nordita/SU Seminar in Theoretical Physics. Thors Hans Hansson, SU: *Fractional statistics — what is believed, what is known, what is measured?* Sal FA31, Roslagstullsbacken 21, AlbaNova universitetscentrum. Se sidan 5.

On 02–27 kl. 13.15–14.15. Seminarium i analys och dynamiska system. Ragnar Sigurdsson, Reykjavik: *Siciak-Zahariuta extremal functions and polynomial hulls.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se sidan 5.

On 02–27 kl. 15.15. Kollokvium i matematisk statistik. *(Observera tiden och lokalen!)* **Professor Jeffrey Steif,** Chalmers tekniska högskola, Göteborg: *Recent developments in probability theory.* Sal 14, hus 5, Matematiska institutionen, SU, Kräftriket. Efter kollokviet serveras förfriskningar. Se sidan 4.

Professor Steifs kollokvium anordnas gemensamt av avdelningarna för matematisk statistik vid SU och KTH.

On 02–27 kl. 16.00. KTH/SU Mathematics Colloquium. Professor Tobias Ekholm, Uppsala universitet: *Holomorphic curves and Morse type inequalities for exact Lagrangian immersions.* 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 6 sidan 6.

To 02–28 kl. 14.00–15.00. Mittag-Leffler Seminar. Gautam Bharali, Indian Institute of Science, Bangalore: *Local polynomial convexity of real surfaces.* Institut Mittag-Leffler, Auravägen 17, Djursholm. Se sidan 4.

To 02–28 kl. 15.30–16.30. Mittag-Leffler Seminar. Robert Berman, Chalmers tekniska högskola, Göteborg: *From transfinite diameters to Monge-Ampère operators.* Institut Mittag-Leffler, Auravägen 17, Djursholm. Se sidan 8.

Fortsättning på nästa sida.

Seminarier (fortsättning)

Fr 02–29 kl. 11.00–12.00. Optimization and Systems Theory Seminar. Magnus Mossberg, Karlstads universitet: *Estimation of continuous-time stochastic system parameters from sample covariances.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se Bråket nr 6 sidan 4.

Fr 02–29 kl. 13.15–14.15. Graduate Student Seminar. Rikard Olofsson, Matematik, KTH: *Primes and arithmetic progressions.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se sidan 9.

Fr 02–29 kl. 13.30. Licentiatseminarium i statistik. Bertil Wegmann försvarar sin licentiatavhandling: *Second Price Common Value Auctions and Bayesian Inference in eBay Auctions.* Opponent: **Bjarne Brendstrup.** William-Olsson-salen, Geohuset Hus U, plan 3, SU, Frescati. Se sidan 7.

Fr 02–29 kl. 14.30–15.30. Minicourse in mathematics. Timothy Logvinenko: *Derived categories and their applications in algebraic geometry. Second lecture.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se Bråket nr 6 sidan 6.

On 03–05 kl. 11.00–12.00. KTH/Nordita/SU Seminar in Theoretical Physics. Francesco Calogero, Physics Department, University of Rome "La Sapienza": *Spontaneous reversal of irreversible processes in a many-body Hamiltonian evolution.* Sal FA31, Roslagstullsbacken 21, AlbaNova universitetscentrum. Se sidan 7.

On 03–05 kl. 16.00. KTH/SU Mathematics Colloquium. Jean Serra, ESIEE, University of Paris-Est: *Connection and connective segmentation.* Sal 14, hus 5, Matematiska institutionen, SU, Kräftriket. Se sidorna 8 – 9.

To 03–06 kl. 10.00–12.00. Seminarium i statistik. Mathias Lanner, SAS Institute: *Data Mining II, Beslutsträdstekniker.* (Det andra av två seminarier.) Sal B705, Statistiska institutionen, SU, Universitetsvägen 10B, plan 7, Frescati. Se Bråket nr 6 sidan 3.

Fr 03–07 kl. 11.00–12.00. Optimization and Systems Theory Seminar. Mats Werme, Optimeringslära och systemteori, KTH: *On methods for discrete topology optimization of continuum structures.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se sidan 5.

Fr 03–07 kl. 14.30–15.30. Minicourse in mathematics. Timothy Logvinenko: *Derived categories and their applications in algebraic geometry. Third lecture.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se Bråket nr 6 sidan 6.

MITTAG-LEFFLER SEMINAR — PLURIKOMPLEXA SEMINARIET

Christophe Mourougane: The geometry of positive vector bundles

Abstract: I will survey on some relations between questions in projective geometry and positivity properties for vector bundles in algebraic and analytic geometry.

Tid och plats: Tisdagen den 26 februari kl. 15.30 – 16.30 vid Institut Mittag-Leffler, Auravägen 17, Djursholm.

MITTAG-LEFFLER SEMINAR — PLURIKOMPLEXA SEMINARIET

Lê Hai Khôi:
Weakly sufficient sets for $A^{-\infty}(\mathbb{B})$

Abstract: In this joint work with Young-Jun Choi and Kang-Tae Kim, we study the space $A^{-\infty}(\mathbb{B})$, the function algebra of holomorphic functions with polynomial growth on the ball $\mathbb{B}$ in $\mathbb{C}^n$, equipped with the standard inductive limit topology. In particular, we prove that $A^{-\infty}(\mathbb{B})$ is an LN^*-space, and we present an explicit construction of a countable subset that is weakly sufficient. The relationship between weakly sufficient sets, sampling sets, and sets of uniqueness is also discussed.

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

KOLLOKVIUM I MATEMATISK STATISTIK

Jeffrey Steif:
Recent developments in probability theory

Abstract: In 2006, Wendelin Werner was awarded the Fields Medal in Mathematics. A large part of the work for which he was awarded the medal was work Werner did jointly with Greg Lawler and Oded Schramm. I will give an overview of a part of this work. Of course, I will give background and attempt to put things in perspective in terms of how this work is related to more familiar notions in probability theory. More specifically, I will explain (1) percolation, (2) the concept of a scaling limit (analogous to how random walk converges to Brownian motion) for discrete statistical mechanical systems, (3) so-called critical exponents, (4) so-called intersection exponents for two-dimensional Brownian motion and what were the contributions of Lawler, Schramm and Werner to these topics. A common thread/tool for all of this is the so-called stochastic Löwner evolution invented by Oded Schramm which I will only very briefly touch on.

Tid och plats: Onsdagen den 27 februari kl. 15.15 i sal 14, hus 5, Matematiska institutionen, SU, Kräftriket. Efter kollokviet serveras förfriskningar.

MITTAG-LEFFLER SEMINAR

Gautam Bharali:
Local polynomial convexity of real surfaces

Abstract: The analysis of local polynomial convexity of a real surface in $\mathbf{C}^2$ reduces — owing to a result by John Wermer — to understanding what happens at complex tangencies. When the complex tangency in question is isolated and non-degenerate (in an appropriate sense), then there is a precise dichotomy that determines whether or not the surface is locally polynomially convex at the complex tangency. We shall extend this dichotomy to degenerate complex tangencies, and formulate a conjecture that this dichotomy again precisely determines local polynomial convexity. We shall then discuss how much of the above conjecture has been established, and present the main ideas of the proof(s).

Tid och plats: Torsdagen den 28 februari kl. 14.00 – 15.00 vid Institut Mittag-Leffler, Auravägen 17, Djursholm.

KTH/NORDITA/SU SEMINAR IN THEORETICAL PHYSICS

Thors Hans Hansson:
Fractional statistics — what is believed, what is known, what is measured?

Abstract: I will survey the basics of (Abelian) fractional statistics and give the arguments for why we believe that this fascinating phenomenon is present in the Quantum Hall system. Then I will try to clear out what is theoretically known for sure, and what we merely have good reasons to believe. Finally I will shortly discuss some proposed experiments, and one that has actually been carried out.

Tid och plats: Onsdagen den 27 februari kl. 11.00 – 12.00 i sal FA31, Roslagstullsbacken 21, AlbaNova universitetscentrum.

SEMINARIUM I ANALYS OCH DYNAMISKA SYSTEM

Ragnar Sigurdsson:
Siciak-Zahariuta extremal functions and polynomial hulls

Abstract: The lecture is a report on joint work with Finnur Larusson, University of Adelaide, Australia. We have proved so-called disc envelope formulas for the Siciak-Zahariuta functions of open domains in affine space, and we are able to use these formulas to characterize polynomial hulls of compact connected subsets of complex affine space.

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

OPTIMIZATION AND SYSTEMS THEORY SEMINAR

Mats Werme:
On methods for discrete topology optimization of continuum structures

Abstract: This talk gives an overview of the methods and results described in my thesis. First, a short introduction of the field of topology optimization of discretized load carrying continuum structures will be given. Common to all considered problems is that the design of the structure is represented by binary design variables, indicating material or void in the various finite elements. This implies that, in general, the considered problems will be nonlinear mixed integer programming problems.

Thereafter, two different methods for efficient sensitivity calculations are presented. These methods are applied in the context of neighbourhood search methods, where one repeatedly jumps to the "best" neighbour of the current design until a local optimum has been found. Next, the neighbourhood search methods are generalized and the nonlinear integer programming problems are solved to provable local optimality by the use of sequential integer programming methods. The key idea in the sequential integer programming methods is to generate and solve a sequence of "easier" subproblems, where the sequence of solutions will converge to a local optimum of the original problem.

Both theoretical and numerical results will be presented.

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

DOKTORANDSTUDIECIRKEL

Tom Britton:
Skriva och presentera matematik/statistik, 5 hp

English: Study circle: Writing and presenting mathematics/statistics, 5 hp. The study circle will be given in English if somebody wants that. Otherwise it will be given in Swedish. Please contact the circle leader *Tom Britton,* tom.britton@math.su.se, for further information.

Jag kommer under vårterminen att leda en studiecirkel för doktorander i matematik och matematisk statistik om att skriva och presentera matematiskt/statistiskt material. Under studiecirkeln kommer alla deltagare att arbeta med 2 till 3 texter. En artikel skall vara forskningsinriktad och en mer populär, samt eventuellt ytterligare en text. Den förstnämnda får gärna vara i ert eget avhandlingsområde, men det får inte vara bråttom. Man kommer även att ge respons på andras artiklar. Dessutom kommer alla att hålla ett föredrag under kursen med datorn som hjälpmedel. Som en biprodukt kommer vi (alla deltagarna) under studiecirkeln att utarbeta en föredragsmall (med SU-logo och dylikt) i LaTex.

Studiecirkelansvarig: Tom Britton, Matematiska institutionen, Stockholms universitet. Telefon: 08-16 45 34, e-post: tom.britton@math.su.se.

Kurspoäng: Kursen motsvarar 5 hp (cirka 3 "gamla" poäng).

Tid: Cirkeln äger rum på onsdagar kl. 9.15 – 11.00 under perioden 27 februari till 30 april (med undantag för den 5 mars) i Cramérsalen, rum 306, hus 6, Matematiska institutionen, SU, Kräftriket.

Examination: Denna består av 2 till 3 skriftliga arbeten som revideras under kursen, muntlig presentation samt kommentarer/feedback på andras skriftliga arbeten och muntliga presentationer.

Obligatorisk undervisning: På grund av studiecirkelns karaktär krävs obligatorisk närvaro vid samtliga sammankomster.

Litteratur: Under kursens gång kommer kopior av ett antal ariklar och (mindre) delar av böcker att delas ut.

Språk: Studiecirkeln sker på engelska om någon efterfrågar det, i annat fall på svenska. Den forskningsinriktade texten skall skrivas på engelska.

Kursstart: Onsdagen den 27 februari kl. 9.15. Till den första sammankomsten ombeds alla deltagare ta med ett embryo till vetenskaplig artikel samt på separat papper en kort "förteckning" över vad artikeln har för huvudbudskap och vem som är tilltänkt läsare (gärna i stolpformat, maximalt 10 stolpar). Den som inte har något "eget" att skriva om kan välja valfritt matematiskt område.

Anmälan: Anmäl er, helst i förväg, till Tom Britton.

Välkomna!
Tom Britton

LICENTIATSEMINARIUM I STATISTIK

Bertil Wegmann

försvarar sin licentiatavhandling:

Second Price Common Value Auctions and Bayesian Inference in eBay Auctions

Opponent: **Bjarne Brendstrup.**

Abstract: Second price common value auctions is the topic of this thesis. Estimation of such auctions are technically challenging, and equilibrium bid functions in these settings are in general complex and not easy to analyse. In Paper 1 we derive closed form approximations of the bid function for two empirically important models. The approximate bid functions can be evaluated directly without time consuming numerical integration. This is crucial for speeding up likelihood/Bayesian estimations on auction data. In Paper 2 we explore the determinants of bidder and seller behaviour by modelling eBay auctions as independent second price common value auctions, and assume a similar (the same in Paper 1) hierarchical Gaussian valuation structure as in Bajari and Hortacsu (2003). We use an efficient Bayesian variable selection algorithm to assess the importance of the models covariates. The good performance of the algorithm is documented on both real and simulated data. An important result of Paper 2 is the nearly identical inferences for the approximate bid function in Paper 1 with the exact bid function, which gives much faster and numerically more stable evaluations of the likelihood function. We apply the methodology to simulated data and to a carefully collected dataset of 1000 coin auctions at eBay. The structural estimates are reasonable, both in sign and magnitude, and the model fits the data well. Finally, we document good out-of-sample predictions from the estimated model.

Tid och plats: Fredagen den 29 februari kl. 13.30 i William-Olsson-salen, Geohuset Hus U, plan 3, SU, Frescati.

KTH/NORDITA/SU SEMINAR IN THEORETICAL PHYSICS

Francesco Calogero:
Spontaneous reversal of irreversible processes in a many-body Hamiltonian evolution

Abstract: An autonomous Hamiltonian model will be presented and discussed. It is a modified version of the most-general translation-invariant N-body problem (N is arbitrary, as well as the dimensions of the ambient space). It features an arbitrary real parameter T and possesses the following two properties, whose coexistence is clearly remarkable. First: all the solutions of this model are completely periodic (i.e., periodic in all degrees of freedom: positions and velocities of the N particles), with the (arbitrarily assigned) period T. Second: the generic solution of this model (starting from generic initial data) has a behaviour that essentially coincides with that of the original (standard) many-body problem (with arbitrary interparticle forces), for times much smaller than T. Hence over such (finite but arbitrarily large) times the dynamics implied by our model generally entails the standard statistical dynamics and thermodynamics, entailing the thermodynamic irreversibility of physical processes; yet its exact evolution is completely periodic . . . .

This is joint work with François Leyvraz.

Tid och plats: Onsdagen den 5 mars kl. 11.00 – 12.00 i sal FA31, Roslagstullsbacken 21, AlbaNova universitetscentrum.

KOMBINATORIKSEMINARIUM

Eric Emtander:
d-flag complexes and chordal hypergraphs

Abstract: Suppose I is a squarefree monomial ideal whose generators all have degree 2. Then we may think of I as the edge ideal of a simple graph G. Ralf Fröberg showed that the minimal resolution of such an ideal is linear precisely when the complementary graph, G^c, is chordal. In his proof Fröberg uses the fact that there are several equivalent descriptions of chordal graphs.

In this talk I will describe a class of hypergraphs that generalizes the class of chordal graphs. We will use d-flag complexes, a generalization of flag complexes.

Tid och plats: Onsdagen den 27 februari kl. 10.15 – 12.00 i seminarierum 3733, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7.

MITTAG-LEFFLER SEMINAR

Robert Berman:
From transfinite diameters to Monge-Ampère operators

Abstract: Ever since its introduction in 1959 by Franciszek Leja, the transfinite diameter $d(K)$ of a compact set K in $\mathbf{C}^n$ has been considered as somewhat mysterious (for $n > 1$). In this talk I will report on some very recent work with Sébastien Boucksom, where we among other things obtain Monge-Ampère expressions for $d(K)$, as well for its weighted counterpart. It turns out that the proper geometric framework is that of a line bundle L over a compact complex manifold X, the classical case appearing when X is the complex projective space.

Tid och plats: Torsdagen den 28 februari kl. 15.30 – 16.30 vid Institut Mittag-Leffler, Auravägen 17, Djursholm.

KTH/SU MATHEMATICS COLLOQUIUM

Jean Serra:
Connection and connective segmentation

Abstract: The notion of a connection is a non-topological generalization of connectivity. Its axiomatics lies on that the union of connected components that intersect is still connected. Such an approach yields powerful filters (levellings), and provides the more classical ones with additional properties (openings). Above all, connection opens a new way to formulate optimization, by acting directly on partition lattices rather than on functionals.

Segmenting the space E, on which a function f spreads out, is defined as the largest partition of this space into homogeneous regions, according to some criterion. It is proved that this problem admits a unique largest solution when the underlying criterion is connective, i.e. when it generates connections over all the subsets where it is satisfied, and uniquely in that case. The family of all possible segmentations of f forms a complete lattice S. This feature allows us to combine the optimal segmentations by means of infima, suprema, and iterations (partial segmentations). The generality of the theorem makes it valid for all functions from any space into any other one. Two propositions make precise the AND and OR combinations of connective criteria.

(Continued on the next page.)

The soundness of the partition approach is illustrated by listing a comprehensive *series of segmentation techniques.* They are classified in three categories:

- No seed based segmentations: various modes of regularity are discussed, which all derived from Lipschitz functions;
- Seed based segmentations: watershed and region growing based algorithms illustrate this type of situation;
- Feature spaces based segmentations: the segmentation occurs in an indirect space, such as a histogram, and is then projected back on the actual space under study.

Hierarchies of connected filters are approached within this framework. They turn out to be chains of nested partitions in the lattice S. Then specific optimizations can be performed for each level of the hierarchy and result in an optimal segmentation. A distinction is made between weak hierarchies where the partitions increase when going up in the pyramid, and the strong hierarchies where the various levels are structured as semi-groups, and particularly as granulometric semi-groups.

Tid och plats: Onsdagen den 5 mars kl. 16.00 i sal 14, hus 5, Matematiska institutionen, SU, Kräftriket.

GRADUATE STUDENT SEMINAR

Rikard Olofsson: Primes and arithmetic progressions

Abstract: I will discuss two important theorems in number theory: First I will talk about Dirichlet's theorem stating that every arithmetic progression (arithmetic sequence) of integers contains an infinite number of primes if there is no trivial obstruction to this. The proof uses classical machinery in analytic number theory. Secondly I will talk about the recent theorem of Green and Tao stating that the primes contain arbitrarily long arithmetic progressions. This proof uses a remarkable transference principle of Szemerédi's theorem.

Tid och plats: Fredagen den 29 februari kl. 13.15 – 14.15 i seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7.

MONEY, JOBS

Columnist: Johannes Lundqvist, Department of Mathematics, Stockholm University. E-mail: johannes@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/~johannes/mj.html.en.
Unless stated otherwise, a given date is the last date (e.g. for applications), and the year is 2008. 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.

(Continued on the next page.)

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. Chalmers tekniska högskola och Göteborgs universitet utlyser doktorandtjänster inom både Matematik och Matematisk statistik. Bland tjänsterna i Matematik finns en som är speciellt inriktad mot Diskreta stokastiska processer. Inom Matematisk statistik välkomnas sökande som har ett allmänt intresse för ämnet och också dem som är särskilt intresserade av att arbeta inom något av följande områden: Spatial statistik, Statistisk genetik och bioinformatik, Stokastiska modeller för havsvågor eller Stokastisk populationsdynamik. Sista ansökningsdag är den 4 mars. Web-info: http://chalmersnyheter.chalmers.se/chalmers03/svensk/ext_ledigatjansterarticle.jsp?article=10774.
12. Skolan för datavetenskap och kommunikation vid KTH söker minst en lektor i numerisk analys. I ämnet ingår utveckling, analys och datorimplementering av beräkningsmetoder, med inriktning på simulering och modellering av tekniska och naturvetenskapliga system. Speciellt fokus ligger på utveckling och analys av matematiska och numeriska metoder för differentialekvationsmodeller med flera tidsskalor och stokastiska processer. Sista ansökningsdag är den 7 mars. Web-info: http://www.kth.se/aktuellt/tjanster/2/ShowAdd.aspx?ID=112962.

Old information

Money to apply for

13. Kungl. Vetenskapsakademien har två olika avtal om postdoc-stipendier för vistelse i Japan för forskning inom bland annat matematik. Det första avtalet omfattar ett till två års vistelse, och det andra omfattar 15 dagar till 11 månaders vistelse. Resekostnader och kostnader under vistelsen täcks av The Japan Society for the Promotion of Science (JSPS). Sista ansökningsdag är den 2 april. Web-info: http://www.kva.se/KVA_Root/swe/awards/scholarships/detail_scholarships.asp?grantsId=25 respektive http://www.kva.se/KVA_Root/swe/awards/scholarships/detail_scholarships.asp?grantsId=41.
14. Kungl. Vetenskapsakademien har avtal om forskarutbyte omfattande två veckor till sex månaders vistelse i Japan för studier/forskning inom bland annat matematik. Resan skall påbörjas under perioden 1 april – 31 december 2008. Sista ansökningsdag är den 2 april. Web-info: http://www.kva.se/KVA_Root/swe/awards/scholarships/detail_scholarships.asp?grantsId=18.
15. Stiftelsen Anna-Greta och Holger Crafoords fond utlyser bidrag och anslag inom ämnet "Matematik inspirerad av modern teoretisk fysik med anknytning till 2008 års Crafoordpristagares forskning" (se Bråket nr 2 sidan 9). Bidrag och anslag kan beviljas såväl till enskilda som institutioner. Bidrag och anslag delas ut företrädesvis till unga forskare. Disponibelt belopp för utdelning under våren 2008 är totalt 210 000 kr. Sista ansökningsdag är den 1 mars. Web-info: http://www.kva.se/KVA_Root/swe/awards/scholarships/detail_scholarships.asp?grantsId=11.

Jobs to apply for

16. Lunds universitet söker en eller två universitetslektorer i matematik. Sista ansökningsdag är den 25 februari. Web-info: http://www.naturvetenskap.lu.se/upload/LUPDF/natvet/Utlysningar/080225_390E.pdf.
17. Umeå universitet söker en "postdoctoral fellow" med doktorsexamen i matematisk statistik eller statistik. Innehavaren av tjänsten skall bedriva forskning med anknytning till "statistical modelling of sediment records to study environment and climate change". Tjänsten varar i ett år med möjlighet till förlängning med ytterligare ett år. Sista ansökningsdag är den 17 mars. Web-info: http://www.math.umu.se/Aktuellt/Vacancies/postdocfellow31515508.pdf.
18. Mittuniversitetet söker en universitetslektor i matematikdidaktik till Institutionen för teknik, fysik och matematik, Campus Härnösand. Arbetsuppgifterna omfattar undervisning och handledning inom såväl forskarutbildning som grundläggande utbildning samt egen forskning. Sista ansökningsdag är den 3 mars. Web-info: http://www.miun.se/mhtemplates/MHPage____35560.aspx.