BRÅKET

Information om seminarier och högre undervisning i matematiska ämnen i Stockholmsområdet

NR 13 **FREDAGEN DEN 7 APRIL 2000**

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 13 april kl. 13.00.

Disputation i optimeringslära och systemteori

Magnus Egerstedt disputerar vid KTH på avhandlingen *Motion Planning and Control of Mobile Robots* fredagen den 14 april kl. 10.00. Se sidan 7.

Disputation i matematik

Anders Olofsson disputerar vid SU på avhandlingen *Topics in Real and Complex Analysis* fredagen den 14 april kl. 13.15. Se sidan 8.

SEMINARIER

Fr 04–07 kl. 9.00–10.00. Kollokvium i fysik. Professor Joseph Nordgren, Ultra-soft X-ray group, Uppsala: *Fourier transform spectroscopy in the soft X-ray range.* Sal F01, Fysiska institutionen, KTH, Lindstedtsvägen 24, b.v. Se Bråket nr 12 sidan 5.

Fr 04–07 kl. 11.00–12.00. Optimization and Systems Theory Seminar. Professor Joachim Rosenthal, University of Notre Dame, USA, and École Polytechnique Fédérale de Lausanne, Switzerland: *Reflections on Shannon's three challenges.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se Bråket nr 11 sidan 6.

Fr 04–07 kl. 13.15–15.00. Seminarium i algebraisk topologi. Orin Sauvageot, SU och EPFL: *The monoidal model category of crossed complexes.* Rum 306, hus 6, Matematiska institutionen, SU, Kräftriket, Roslagsvägen 101. Se Bråket nr 12 sidan 7.

Må 04–10 kl. 9.30–11.15. Graduate Course in Operator Theory. Professor Sergey Naboko, St. Petersburg University: *Some elementary spectral properties of a class of self-adjoint Jacobi matrices.* Sal 14, hus 5, Matematiska institutionen, SU, Kräftriket, Roslagsvägen 101. Se sidan 4.

Fortsättning på nästa sida.

Swedish-Russian Conference on Combinatorics and Dynamics

Denna kommer att äga rum vid KTH under tiden 3 – 8 oktober 2000. Se sidan 4.

Kurs

Sergey Naboko: Operator Theory. Se sidan 4.

Money, jobs, conferences: Se sidorna 10 – 12.

Seminarier (fortsättning)

Må 04–10 kl. 13.15 – 14.00. Seminar in Theoretical and Applied Mechanics. Dr Johan Hamberg, FOA, Stockholm: *The method of controlled Lagrangians.* Seminarierum 40, Institutionen för mekanik, KTH, Teknikringen 8, b.v. Se sidan 9.

Må 04–10 kl. 13.15 – 15.00. Algebraseminarium. Nicolas Dupont, Université de Lille: *Hochschild homology, cyclic homology and free loop spaces.* Rum 306, hus 6, Matematiska institutionen, SU, Kräftriket, Roslagsvägen 101. Se Bråket nr 12 sidan 8.

Ti 04–11 kl. 10.15. Plurikomplexa seminariet. Dimitry Leites, SU: *Classical orthogonal polynomials and Lie algebras of matrices of complex size.* Rum 306, hus 6, Matematiska institutionen, SU, Kräftriket, Roslagsvägen 101. Se sidan 5.

Ti 04–11 kl. 11.00 – 12.00. Optimization and Systems Theory Seminar. *(Observera dagen!)* **Magnus Egerstedt,** Optimeringslära och systemteori, KTH, och Harvard University, USA: *On the control complexity of motion languages.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se Bråket nr 12 sidan 4.

Den forskning som Magnus Egerstedt presenterar vid seminariet den 11 april är en fortsättning av forskningen i hans doktorsavhandling, vilken kommer att försvaras den 14 april. Se sidan 7.

Ti 04–11 kl. 13.15. Plurikomplexa seminariet. Bo Berndtsson, Göteborg: *Levi-flat surfaces with circular sections and Seiberg-Witten equations.* Rum 306, hus 6, Matematiska institutionen, SU, Kräftriket, Roslagsvägen 101. Se sidan 5.

Ti 04–11 kl. 13.15 – 14.15. Seminarium i PDE och spektralteori. Ashot Vagharshakyan, Jerevan: *On the spectrum of a Sturm-Liouville operator.* Seminarierum 3733, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se sidan 6.

Ti 04–11 kl. 14.00 – 15.00. Mittag-Leffler Seminar. Nina Uraltseva, St. Petersburg: *Mean curvature flows in nonconvex domains.* Institut Mittag-Leffler, Auravägen 17, Djursholm.

Ti 04–11 kl. 15.30 – 16.30. Mittag-Leffler Seminar. Jana Björn, Linköping: *Boundary Hölder continuity for solutions of a Dirichlet problem.* Institut Mittag-Leffler, Auravägen 17, Djursholm.

On 04–12 kl. 10.00 – 11.45. Logikseminariet Stockholm-Uppsala. Nils Sjögren: *Beautiful automorphisms.* Sal 16, hus 5, Matematiska institutionen, SU, Kräftriket, Roslagsvägen 101.

On 04–12 kl. 10.15 – 12.00. Combinatorics Seminar. *(Observera att lokalen är ändrad!)* **Svante Linusson** och **Johan Wästlund:** *A random assignment problem.* Sal 22, hus 5, Matematiska institutionen, SU, Kräftriket, Roslagsvägen 101. Se sidan 6.

On 04–12 kl. 10.30 – 11.30. Analysseminarium. Jan Boman, SU: *A Payley-Wiener Theorem for the analytic wave front set.* Seminarierum 3733, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se Bråket nr 12 sidan 6.

On 04–12 kl. 13.15. Dynamiska systemseminariet. Professor Lennart Carleson: *On deterministic DLA.* Seminarierum 3733, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Internet-adressen till information om seminariet är http://www.math.kth.se/math/research/dynsyst.

Fortsättning på nästa sida.

Seminarier (fortsättning)

On 04–12 kl. 14.00 – 16.00. Arbetsgrupp i komplex analys. Bruno Fabre, SU: *Non-reduced residues and Abel's theorem.* Rum 321, hus 6, Matematiska institutionen, SU, Kräftriket, Roslagsvägen 101.

To 04–13 kl. 13.00 – 15.00. Seminarium i statistik. *(Observera dagen!)* **Professor Henry Montgomery,** Psykologiska institutionen, SU: *Sannolikhetsbegreppet och sannolikhetsuppfattningar ur psykologisk synvinkel.* Rum B705, Statistiska institutionen, SU.

To 04–13 kl. 14.00 – 15.00. Informal seminar on A^1-homotopy theory of schemes. W. Chacholski. Sammanträdesrum 3548, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 5.

To 04–13 kl. 14.00 – 15.00. Mittag-Leffler Seminar. Gunnar Aronsson, Linköping: *A mathematical model for the injection moulding of plastics.* Institut Mittag-Leffler, Auravägen 17, Djursholm.

To 04–13 kl. 15.00 – 16.00. Optimization and Systems Theory Seminar. *(Observera dagen och tiden!)* **Professor Bijoy K. Ghosh,** Department of Systems Science and Mathematics, Washington University, St. Louis, USA: *Control and signal processing with a population of neurons.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se sidan 6.

Professor Ghosh är fakultetsopponent vid Magnus Egerstedts disputation. *Se sidan 7.*

To 04–13 kl. 15.30 – 16.30. Mittag-Leffler Seminar. Nicolai Nikolskii, St. Petersburg/ Bordeaux: *Similarity to a normal operator and singular integrals.* Institut Mittag-Leffler, Auravägen 17, Djursholm.

Professor Nikolskii är fakultetsopponent vid Anders Olofssons disputation. *Se sidan 8.*

Fr 04–14 kl. 9.00 – 10.00. Kollokvium i fysik. Docent Peter Krylstedt, FOA: *On electromagnetic underwater surveillance and silencing.* Sal F01, Fysiska institutionen, KTH, Lindstedtsvägen 24, b.v. Se sidan 5.

Fr 04–14 kl. 13.15 – 15.00. Seminarium i algebraisk topologi. Nicolas Dupont, Université de Lille: *An introduction to the models of Sullivan and Quillen.* Rum 306, hus 6, Matematiska institutionen, SU, Kräftriket, Roslagsvägen 101. Se sidan 7.

Fr 04–14 kl. 15.15. Seminarium i matematisk statistik. *(Observera dagen och lokalen!)* **Professor Claudia Klüppelberg,** Technische Universität München: *Insurance and finance.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se Bråket nr 12 sidan 7.

On 04–19 kl. 15.00 – 16.00. Seminarium i matematik och fysik vid Mälardalens högskola (Västerås). Professor Lars-Erik Persson, Luleå tekniska universitet: *Some remarkable inequalities connected to L^p-spaces and fractional order Hardy inequalities.* Rum N13, Mälardalens högskola, Högskoleplan, Västerås. Se sidan 9. Internet-adressen till information om seminariet är http://www.ima.mdh.se/_seminars.htm.

GRADUATE COURSE IN OPERATOR THEORY

Sergey Naboko: Some elementary spectral properties of a class of self-adjoint Jacobi matrices

Professor Sergey Naboko, St. Petersburg University, will give a lecture describing recent results on the spectrum of Jacobi matrices obtained in collaboration with Professor J. Janas. The presentation will be given on a rather elementary level, suitable for advanced students. The lecture belongs to the course Operator Theory, given by Pavel Kurasov, but all interested are welcome.

Abstract: We consider a special class of Hermitian Jacobi (tridiagonal) infinite matrices J whose matrix elements depend linearly on the indices. The continuous spectrum of such matrices fills the negative semiaxis up to the point -1. The discrete spectrum always contains few eigenvalues. The properties of the discrete spectrum are studied. This investigation is rather elementary and is based on the well-known connection between the discrete spectrum and the quadratic form of a self-adjoint operator. This model appears in the theory of first order spectral phase transitions.

Tid och plats: Måndagen den 10 april kl. 9.30 – 11.15 i sal 14, hus 5, Matematiska institutionen, SU, Kräftriket, Roslagsvägen 101.

Swedish-Russian Conference on Combinatorics and Dynamics
First announcement

The conference will take place at the Royal Institute of Technology (KTH), Stockholm, from October 3 to October 8, 2000. It is supported by NFR (Swedish Natural Science Research Council). For questions about attendance and support, please contact the organizers.

The conference is aimed mainly at young mathematicians from Sweden and Russia, but participants from other countries are also welcome. The emphasis will be on the interaction of the Combinatorics and Dynamics, and their relation to Probability and Mathematical Physics.

We plan to expand the collaboration between the strong research groups working in these areas in Sweden and Russia, and also to encourage cooperation between people working in different areas.

List of main speakers (may be expanded later):

- Professor D. Anosov (Steklov Institute, Moscow) (to be confirmed).
- Professor S. Janson (Uppsala University).
- Docent K. Johansson (KTH, Stockholm).
- Professor V. Kaimanovich (CNRS, France).
- Professor A. Vershik (Steklov Institute, St. Petersburg).

Organization: The mini-courses given by the main speakers will be complemented with shorter talks by younger participants and an open problems session.

Organizers: Tatiana Smirnova-Nagnibeda, KTH, e-mail: tatiana@math.kth.se. Stanislav Smirnov, KTH, e-mail: stas@math.kth.se. Fax: 08-723 17 88 (national), +46-8-723 17 88 (international). http://www.math.kth.se/~stas/sto2000/index.html.

PLURIKOMPLEXA SEMINARIET

Dimitry Leites: Classical orthogonal polynomials and Lie algebras of matrices of complex size

Abstract: Classical orthogonal polynomials like sines, cosines, and more sophisticated Chebychev and Hahn polynomials, as well as their q-analogues (whatever this is), have so numerous applications that even school-children know about some of them. These applications make the study of the properties of these polynomials vital. In the talk, *which requires no preliminary knowledge,* I will show a uniform way to introduce all the classical orthogonal polynomials in terms of the trace of $n \times n$ matrices. Particularly interesting is the case when n is a complex number! This method allows one to obtain multidimensional orthogonal polynomials in a most natural way. (Observe also that generalizations of the Lie algebra of matrices of complex size provide us with a natural generalization of the Korteveg-de Vries hierarchy and appear as symmetry algebras in unconventional supergravity models of the Grand Unification Theory, which allow particles of spin greater than 2. This parenthetical remark will not be discussed during the talk, unless the audience desires otherwise, but during the break.)

Tid och plats: Tisdagen den 11 april kl. 10.15 i rum 306, hus 6, Matematiska institutionen, SU, Kräftriket, Roslagsvägen 101.

PLURIKOMPLEXA SEMINARIET

Bo Berndtsson: Levi-flat surfaces with circular sections and Seiberg-Witten equations

Abstract: We will show how the Seiberg-Witten equations on a Kahler manifold can be thought of as a complex two-dimensional variant of the equations that describe circled Levi-flat surfaces over a Riemann surface. We then discuss various different interpretations of the Riemann surface equations and their counterparts in the two-dimensional case.

Tid och plats: Tisdagen den 11 april kl. 13.15 i rum 306, hus 6, Matematiska institutionen, SU, Kräftriket, Roslagsvägen 101.

KOLLOKVIUM I FYSIK

Peter Krylstedt: On electromagnetic underwater surveillance and silencing

Abstract: Work on theoretical tools for the analysis of underwater electromagnetic surveillance and silencing is presented. In particular, we discuss the optimization of degaussing coils for ships and inverse magnetic and electric source modelling for the em underwater signatures.

Some aspects of managing large defence research programmes and international collaborative projects are also discussed. I will give some perspectives on what I remember having been valuable from my education at engineering physics at KTH.

Tid och plats: Fredagen den 14 april kl. 9.00 – 10.00 i sal F 01, Fysiska institutionen, KTH, Lindstedtsvägen 24, b.v.

SEMINARIUM I PDE OCH SPEKTRALTEORI

Ashot Vagharshakyan:
On the spectrum of a Sturm-Liouville operator

Abstract: We consider a Sturm-Liouville operator on a finite interval and prove the existence of transformations which provide a shift of the spectrum. We also discuss the corresponding inverse spectral problems.

Tid och plats: Tisdagen den 11 april kl. 13.15 – 14.15 i seminarierum 3733, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7.

COMBINATORICS SEMINAR

Svante Linusson, Johan Wästlund:
A random assignment problem

Abstract: Let A be an $n \times n$ matrix with random independent variables in each entry, all of which are exponentially distributed with mean 1. Let $A(n)$ be the smallest possible sum of n entries in A such that no two are in the same column or the same row, i.e. it is a minimal assignment of A. Let $f(n)$ be the expected value of $A(n)$. It has been conjectured that $f(n) = 1 + 1/4 + 1/9 + \cdots + 1/n^2$, and this has been verified up to $n = 7$.

Since the conjecture was formulated there has been a lot of work on the problem, more general conjectures have been made, special cases have been proved and incorrect proofs have been published by physicists. We will explain a method to approach the problem and present a very general conjecture we have. We will also prove several new results. Beautiful mathematics comes out of this, but the main conjecture is still open.

Tid och plats: Onsdagen den 12 april kl. 10.15 – 12.00 i sal 22, hus 5, Matematiska institutionen, SU, Kräftriket, Roslagsvägen 101.

OPTIMIZATION AND SYSTEMS THEORY SEMINAR

Bijoy K. Ghosh:
Control and signal processing with a population of neurons

Abstract: This talk presents a dynamic model of a spiking neuron using the well-known Hodgkin-Huxley model and many of its simplifications. We demonstrate that the spikes encode analogue signals that can be used both as a control signal as well as a sensory visual signal, for example in the visual cortex. We consider a population of neurons and show how they can be used in controlling the movement of the human arm in a horizontal plane. The parameters of the desired trajectory as well as the system variables (angle and velocities) are encoded using these populations. The underlying mathematics, including integration, differentiation and other algebraic relationships, has been done at the level of neuronal activity. We also study how a population of neurons can be used to model the dynamic interaction of cells in the visual cortex of freshwater turtles. Using our simulation model, we are able to reproduce a wave of activity that propagates across the cortex. Using principal component analysis on these waves, we show how these waves can discriminate between various visual inputs to the retina of the turtle.

Tid och plats: Torsdagen den 13 april kl. 15.00 – 16.00 i seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7.

DISPUTATION I OPTIMERINGSLÄRA OCH SYSTEMTEORI

Magnus Egerstedt

disputerar på avhandlingen

Motion Planning and Control of Mobile Robots

fredagen den 14 april 2000 kl. 10.00 i Kollegiesalen, Administrationsbyggnaden, KTH, Valhallavägen 79. Till fakultetsopponent har utsetts *professor Bijoy K. Ghosh,* Washington University, St. Louis, USA.

Abstract of the thesis

In this thesis various control theoretic questions from the field of autonomous robotics are investigated. Those questions range from motion planning and control to modelling and analysis of complex control systems based on hybrid automata theory.

A path planning method is proposed for generating smoothing splines that are optimal with respect to an energy functional at the same time as they drive the output of a given, linear control system close to desired waypoints. These curves are furthermore numerically inexpensive to produce, which suggests that they can be used on-line for refining or updating paths as a reaction to unexpected events in the environment.

A stable and model-independent control strategy for making mobile platforms track reference paths is also proposed. The control algorithm is based on a parameterization of the reference trajectory in such a way that the motion of the point on the trajectory, tracked by the robot, is governed by a differential equation containing error feedback. This makes the method robust to disturbances and measurement errors.

The third topic covered in this thesis concerns the integration of continuous controllers into one, complex control system. These types of complex control architectures can for instance be found in a behaviour based robot system, where different continuous robot behaviours are influenced by events in the environment or controlled transitions between different behaviours. This combination of continuous and discrete phenomena makes it possible to model the system as a hybrid automaton. It is furthermore shown in this thesis how chattering between different behaviours can be avoided within this framework by exploiting regularization techniques that basically involve adding extra nodes to the hybrid automaton.

SEMINARIUM I ALGEBRAISK TOPOLOGI

Nicolas Dupont:
An introduction to the models of Sullivan and Quillen

Abstract: Homology groups and homotopy groups of spaces are often very intricate. The models of Sullivan and Quillen, which induce equivalences between the rational homotopy category of spaces and the homotopy categories of commutative cochain algebras over the rationals and of chain Lie algebras over the rationals, are the best tools to analyse the free part of those groups. We present the two models, the relationship between them, and some elementary applications and computations.

Tid och plats: Fredagen den 14 april kl. 13.15 – 15.00 i rum 306, hus 6, Matematiska institutionen, SU, Kräftriket, Roslagsvägen 101.

DISPUTATION I MATEMATIK

Anders Olofsson

disputerar på avhandlingen

Topics in Real and Complex Analysis

fredagen den 14 april 2000 kl. 13.15 i föreläsningssalen, sal 14, hus 5, Matematiska institutionen, SU, Kräftriket, Roslagsvägen 101. Till fakultetsopponent har utsetts *professor Nicolai Nikolskii,* S:t Petersburg och Bordeaux.

Abstract of the thesis

This thesis consists of the following six papers dealing with different problems in Mathematical Analysis.

Paper I: *On a variant of the Bernstein-Walsh Theorem.* This paper is concerned with a classical theorem of S. Bernstein and J. L. Walsh on polynomial approximation in the complex domain. The result proved in this paper is a generalization of the Bernstein-Walsh result valid for rational functions.

Paper II: *On a Kernel function related to the Bergman space* L^2_a. This paper is concerned with the kernel function K_A for the subspace N_A of the standard Bergman space $L^2_a(\mathbb{D})$ consisting of those square area integrable analytic functions in the unit disc $\mathbb{D}$ vanishing on a finite zero set A. The result obtained displays a relation of K_A to a corresponding kernel function for the Hardy space $H^2(\mathbb{D})$.

Paper III: *Absolutely continuous measures on non quasi-analytic curves with independent powers.* In this paper we prove that every non quasi-analytic Carleman class contains functions whose graph supports measures that are absolutely continuous with respect to arc length measure and yet they have independent convolution powers in the measure algebra $M(\mathbb{R}^2)$. The proof relies on conditions which ensure that the canonical map between two Cantor sets can be extended to a function in an arbitrary prescribed non quasi-analytic Carleman class.

Paper IV: *Nilpotent measures and Wiener subalgebras of* $M(\mathbb{R}^n)$. This paper is an exposition of some previously unpublished work of Jan-Erik Björk. In some sense the material in this note serves as a motivation for Paper III in this thesis. In particular, it follows from results here proved that the main result in Paper III is not true if the curve there is required to be of higher regularity.

Paper V: *An extremal problem in Banach algebras.* This paper deals with norm-controlled inversion in Banach algebras. The paper contains a quantitative formulation of a result by Jan-Erik Björk. Also, a question raised by J.-E. Björk (On the spectral radius formula in Banach algebras, *Pacific J. Math.* **40** (1972), 279 – 284) is answered in the negative. Counterexamples are given by certain renormings of the Wiener algebra of absolutely convergent Taylor series in the unit disc.

Paper VI: *Continuous measures with large partial sums.* In this paper it is shown that all non zero measures, supported by certain singular Cantor type subsets of $\mathbb{T}$, have asymptotically large, in the sense of L^1-norm, Fourier partial sums. The results of this paper answer a question by Mats Erik Andersson at Stockholm University, and, in some sense, refine an old result of Fejér/Zygmund.

SEMINAR IN THEORETICAL AND APPLIED MECHANICS

Johan Hamberg:
The method of controlled Lagrangians

Abstract: The method of controlled Lagrangians consists in constructing state feedback laws for underactuated Lagrangian systems, such that the closed loop equations are still Lagrangian. This method was introduced by Bloch, Leonard and Marsden (1997) in the context of classical Lagrangians with a certain symmetry structure. This seminar will review some recent results, extending the original context to general Lagrangians without symmetry and giving necessary and sufficient conditions on the "new" Lagrangian for Lagrangian feedback to be possible. A reformulation and extension of the setup by Bloch, Leonard and Marsden shows how it fits in as a special case of the general theory. A generalization to systems with (anholonomic) constraints is also given. The method is illustrated by several examples.

Tid och plats: Måndagen den 10 april kl. 13.15 – 14.00 i seminarierum 40, Institutionen för mekanik, KTH, Teknikringen 8, b.v.

SEMINARIUM I MATEMATIK OCH FYSIK VID MÄLARDALENS HÖGSKOLA (VÄSTERÅS)

Lars-Erik Persson:
Some remarkable inequalities connected to L^p-spaces and fractional order Hardy inequalities

Abstract: On request I will start my lecture by giving a brief presentation of the Centre of Applied Mathematics, which we have built up at Luleå University of Technology during the five last years. After that I will give some examples of integral inequalities which we have proved during the last two years. I will concentrate on Hardy type inequalities and some inequalities connected to L^p-spaces. More precisely, I will present some results and ideas from the papers [1 – 4], which I think are especially interesting and sometimes surprising (at least for me). Also some even newer results will be mentioned and some open questions posed.

References:

[1] N. Kaiblinger, L. Maligranda and L.-E. Persson, *Norms in weighted L^2-spaces and Hardy operators,* Lecture Notes in Pure and Applied Mathematics, Marcel Dekker, to appear 2000.

[2] N. Krugljak, L. Maligranda and L.-E. Persson, *Failure of the Hardy inequality and interpolation of subspaces,* Arkiv Mat. **37** (1999), 323 – 344.

[3] N. Krugljak, L. Maligranda and L.-E. Persson, *On an elementary approach to the fractional order Hardy inequality,* Proc. Amer. Math. Soc., March 2000.

[4] A. Kufner and L.-E. Persson, *Some difference inequalities with weights and interpolation,* Math. Ineq. Appl. **3** (1999), 437 – 444.

Tid och plats: Onsdagen den 19 april kl. 15.00 – 16.00 i rum N13, Mälardalens högskola, Högskoleplan, Västerås.

MONEY, JOBS, CONFERENCES

Columnist: Pär Holm, Department of Mathematics, SU. E-mail: pho@matematik.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.
Unless stated otherwise, a given date is the last date (e.g. for applications), and the year is 2000. A number without an explanation is a telephone number.

Standard information channels

1. A channel to information from TFR: http://www.tfr.se.
2. A channel to information from NFR: http://www.nfr.se.
3. A channel to information from the European Mathematical Society: http://www.emis.de.
4. A channel to information from the American Mathematical Society: http://www.ams.org.
5. KTH site for information on funds, etc., weekly: http://www.admin.kth.se/info/kth-kalendern/stipendier.html.
6. Stockholm University site for information on funds: http://www.sb.su.se/stipendier/.
7. Umeå site for information on funds: http://www.umu.se/umu/aktuellt/stipendier_fond_anslag.html.
8. Job announcement site: http://www.maths.lth.se/nordic/Euro-Math-Job.html. This is run by the European Mathematical Society.
9. KTH site for information on research: http://www.admin.kth.se/CA/extrel/index/forsk.html.

New information

Money, to apply for

10. TFR utlyser forskningsmedel för teknikvetenskaplig grundforskning: projektanslag, dyr utrustning samt industridoktorandprojekt, 5 maj. Info: 08-454 41 70. Web-info: se punkt 1 ovan.
11. Forskningsrådsnämnden (FRN) utlyser medel för dyrbar vetenskaplig utrustning och högpresterande datorsystem. Anslaget är avsett för utrustning som kostar minst 2 miljoner kr, 11 maj. Info: Eva-Lill Spångberg, 08-454 41 37, eller Leif Eriksson, 08-454 41 34. Web-info: http://www.frn.se/blanketter.htm.
12. NFR utlyser projektbidrag för år 2001, 12 maj. Web-info: se punkt 2 ovan.

Jobs, to apply for

13. Matematikcentrum vid Lunds universitet söker en doktorand i matematisk statistik, 14 april. Info: Georg Lindgren, 046-222 85 47, Georg.Lindgren@matstat.lu.se.
14. Matematiska institutionen vid Uppsala universitet söker en universitetslektor i matematik, 18 april. Info: Lars-Åke Lindahl, 018-471 32 06, Lars-Ake.Lindahl@math.uu.se. Web-info: http://www.personalavd.uu.se/annonser/univlmatematik.html.
15. Området lärarutbildningen vid Malmö högskola söker en universitetslektor i matematik, 30 april. Info: Lars Åhlin, 040-32 50 32, Ann-Christin Isacsson, 040-32 51 56, eller Marie Böiers, 040-32 50 43. Web-info: http://www.mah.se/platsann.asp?DNR=163.
16. Centrum för naturresurs- och miljöforskning (CNM) vid SU söker doktorander från alla fakulteter som projektassistenter. Endast den som är antagen som doktorand vid SU kan komma ifråga för anställning, 30 april. Info: Christina Schaffer, 08-16 36 65, Schaffer@cnm.su.se, Carl Folke, 08-16 42 17, calle@system.ecology.su.se, eller BBSU.
17. Institutionen för informationsvetenskap vid Uppsala universitet söker en professor i statistik med inriktning mot ekonometri, 27 juni. Info: Anders Christoffersson, 018-471 11 39, Anders.Christoffersson@dis.uu.se. Web-info: http://www.personalavd.uu.se/annonser/profekonometri.html.

(Continued on the next page.)

Conferences, etc.

18. Swedish-Russian Conference on Combinatorics and Dynamics, October 3 – 8, KTH, Stockholm. Info: Tatiana Smirnova-Nagnibeda, tatiana@math.kth.se, or Stanislav Smirnov, stas@math.kth.se. See this issue of Bråket page 4.

Old information

Money, to apply for

19. Stipendier ur SU:s stipendiestiftelser utlyses. Stipendierna är huvudsakligen avsedda för studier vid SU, 14 april. Web-info: http://www.sb.su.se/stipendier/donation.html.
20. Nämnden för svensk-amerikanskt forskarutbyte utlyser "Fulbright Grants for Visiting Lecturers and Research Scholars", för forskning och undervisning i USA 2000/01, 15 april. Info: Fulbright Commission, 08-24 85 21. Web-info: http://www.usemb.se/Fulbright/grants/schgrants2000.html.
21. Rådet för högskoleutbildning inbjuder till ansökan om ekonomiskt stöd för pedagogiska utvecklingsprojekt inom forskarutbildningen, 26 april. Info: Lars Haikola, 046-222 70 41, lars.haikola@intsek.lu.se, eller Hans Jalling, 08-563 088 60, hans.jalling@hsv.se. Web-info: http://www.hgur.se/general_info/ansokan/form.htm.
22. Knut och Alice Wallenbergs Stiftelse utlyser stipendier för yngre kvinnliga forskare (födda efter 1957), som avlagt doktorsexamen 1998 eller senare och som har fortsatt anknytning till svensk vetenskaplig institution, eller som kommer att avlägga doktorsexamen under innevarande termin, 2 maj. Info: Knut och Alice Wallenbergs Stiftelse, 08-545 017 84. Web-info: http://wallenberg.org/kaw/1_5_4_4.htm.
23. Stiftelsen för strategisk forskning (SSF) utlyser tjugo anslag på tio miljoner kr vardera till yngre framstående forskare inom bl.a. tillämpad matematik. Anslaget är avsett att användas under normalt sex år för innovativ forskning vid svenska universitet eller högskolor, 2 maj. Web-info: http://www.stratresearch.se.
24. Carl Tryggers stiftelse för vetenskaplig forskning utlyser anslag avseende projekt till "för Sverige betydelsefull forskning" inom bl.a. naturvetenskap och tekniska vetenskaper, 5 juni. Info: 08-663 86 00. Web-info: http://home.swipnet.se/carl_tryggers_stiftelse.
25. Stiftelsen för internationalisering av högre utbildning och forskning (STINT) utlyser bidrag för kortare utlandsvistelser för lärare eller forskare vid svenskt universitet, högskola eller forskningsinstitut, dock ej doktorander. Ansökan kan inlämnas fortlöpande under året, dock senast 8 veckor före den dag då utlandsvistelsen avses påbörjas. Web-info: http://www.stint.se/KPutlys.html.
26. Anslag ställs, från Knut och Alice Wallenbergs Stiftelse, till rektors för KTH förfogande för att "i första hand användas till bidrag för sådana resor, som bäst befordrar ett personligt vetenskapligt utbyte till gagn för svensk forskning. Bidrag skall främst beviljas till yngre forskare." Ansökan om resebidrag skall ställas till rektors kansli. Bidrag kan sökas när som helst under året. Info: se punkt 5 ovan.
27. Nordisk Forskerutdanningsakademi (NorFA) finansierar nordiskt samarbete inom forskning och forskarutbildning genom dels personliga stipendier (mobilitetsstipendier och för deltagande i nationella forskarutbildningskurser), dels anslag till institutioner (forskarutbildningskurser, nordiska nätverk, gästprofessurer och workshops). Info: http://www.norfa.no.
28. Svenska Institutet (SI) utlyser kontinuerligt stipendier och bidrag för studier och forskning utomlands: stipendier för Europastudier, internationella forskarstipendier, Östersjöstipendier, Visbyprogrammet, m.m. Aktuell information om SI:s samtliga stipendiemöjligheter och ansökningshandlingar finns på SI:s hemsida: http://www.si.se.
29. Stiftelsen för internationalisering av högre utbildning och forskning (STINT) utlyser medel för att främja samarbete med universitet och högskolor i Republiken Korea (Sydkorea), Taiwan, Hongkong, Indonesien och Egypten. Ansökningar skall inlämnas minst 6 – 8 veckor före verksamhetsstarten, och medlen kan sökas löpande under året. Info: STINT, Skeppargatan 8, 114 52 Stockholm, 08-662 76 90. Web-info: www.stint.se.
30. Wenner-Gren Stiftelserna utlyser gästföreläsaranslag för gästföreläsningar. Anslag sökes av svensk forskare som önskar inbjuda utländsk forskare. Ansökan kan inlämnas när som helst under året. Web-info: http://www.wenner-grenstift.a.se.
31. NUTEK stipends for stay in research institutions (not universities) in Japan. Short or long periods. For persons with or almost with doctoral degree. Info: Kurt Borgne, 08-681 92 65, kurt.borgne@nutek.se. You can apply any time.

(Continued on the next page.)

Jobs, to apply for

32. Matematiska institutionen vid SU utlyser utbildningsbidrag/doktorandtjänster i matematik, 14 april. Info: Jan-Erik Roos, 08-16 45 31, jeroos@matematik.su.se, eller Ralf Fröberg, 08-16 45 44, ralff@matematik.su.se. Web-info: http://www.matematik.su.se/~torbjorn/Ansfoutbmatte00.html. Se Bråket nr 10 sidan 7.
33. Matematiska institutionen vid SU utlyser utbildningsbidrag/doktorandtjänster i matematisk statistik, 15 april. Info: Esbjörn Ohlsson, 08-16 45 58, esbj@matematik.su.se. Web-info: http://www.matematik.su.se/matstat/jobb/.
34. Matematikcentrum vid Lunds tekniska högskola söker en professor i numerisk beräkningsteknik, 19 april. Info: Klas Malmqvist, 046-222 76 84, Klas.Malmqvist@nuclear.lu.se, eller Gustaf Söderlind, 046-222 49 09, Gustaf.Soderlind@na.lu.se. Web-info: http://www2.lth.se/ledjobb/prof/index_e.asp.
35. Institutionen för matematik och systemteknik vid Växjö universitet söker doktorander i matematik/tillämpad matematik, 19 april. Info: Mathias Hedenborg, 0470-70 86 38, mathias.hedenborg@msi.vxu.se, eller Hans Frisk, 0470-70 84 01, hans.frisk@msi.vxu.se. Web-info: http://www.vxu.se/start/aktuellt/job/doktorander_matematik.html.
36. Institutionen för fysik och matematik vid Mitthögskolan i Sundsvall söker en professor i matematik, med inriktning mot komplex analys, 31 augusti. Info: Urban Cegrell, 060-14 84 01, eller Nils Olander, 060-14 87 58. Web-info: http://www.mh.se/jobb/FMI000324.html.