BRÅKET

Information om seminarier och högre undervisning i matematiska ämnen i Stockholmsområdet

NR 41 **FREDAGEN DEN 6 DECEMBER 2002**

BRÅKET

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

Redaktör: Gunnar Karlsson

Telefon: 08-790 84 79

Adress för e-post: gunnarkn@math.kth.se

Bråket på Internet: http://www2.math.kth.se/~gunnarkn/

Postadress:
Red. för Bråket
Institutionen för matematik
KTH
100 44 Stockholm

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Sista manustid för nästa nummer:
Torsdagen den 12 december kl. 13.00.

Disputation i matematik

Ulf Karlsson disputerar på avhandlingen *Semi-classical Approximations of Quantum Mechanical Problems* den 6 december kl. 15.15 i sal D2, KTH, Lindstedtsvägen 5, b.v. Se Bråket nr 40 sidan 7.

Nästa nummer av Bråket,

som utkommer den 13 december, blir det sista före juluppehållet. Numret därefter utkommer den 10 januari 2003.

SEMINARIER

Fr 12–06 kl. 11.00–12.00. Optimization and Systems Theory Seminar. Professor Manfred Morari, Automatic Control Lab, ETH Zürich: *Optimal control of hybrid systems.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se sidan 4.

Fr 12–06 kl. 13.15. Seminarium i fysik. Professor S. M. Bilenky, JINR, Dubna, och INFN, Torino: *Neutrino masses, mixing and oscillations.* Seminarierummet, Roslagstullsbacken 11, Stockholms centrum för fysik, astronomi, bioteknik (SCFAB, AlbaNova). Se sidan 9.

Sö 12–08 kl. 9.00. Nobelföreläsning i fysik. Andrew M. Davis: *A half-century with solar neutrinos.* Aula Magna, SU.

Andrew M. Davis är son till Nobelpristagaren Raymond Davis Jr.

Sö 12–08 kl. 9.45. Nobelföreläsning i fysik. Masatoshi Koshiba: *Birth of neutrino astrophysics.* Aula Magna, SU.

Sö 12–08 kl. 10.30. Nobelföreläsning i fysik. Riccardo Giacconi: *The dawn of X-ray astronomy.* Aula Magna, SU.

Sö 12–08 kl. 12.30. Nobelföreläsning i kemi. John B. Fenn: *Electrospray wings for molecular elephants.* Aula Magna, SU.

Sö 12–08 kl. 13.15. Nobelföreläsning i kemi. Koichi Tanaka: *The origin of macromolecule ionization by laser irradation.* Aula Magna, SU.

Sö 12–08 kl. 14.00. Nobelföreläsning i kemi. Kurt Wüthrich: *NMR studies of structure and function of biological micromolecules.* Aula Magna, SU.

Fortsättning på nästa sida.

Money, jobs: Se sidorna 9–10.

Seminarier (fortsättning)

Sö 12–08 kl. 15.30. Nobelföreläsning i ekonomi. Daniel Kahneman: *Maps of bounded rationality.* Aula Magna, SU.

Sö 12–08 kl. 16.15. Nobelföreläsning i ekonomi. Vernon L. Smith: *Constructivist and ecological rationality in economics.* Aula Magna, SU.

Må 12–09 kl. 13.15–15.00. Algebra and Geometry Seminar. Jan-Erik Roos: *Explicit calculations of Hochschild (co)homology of commutative rings.* Rum 306, hus 6, Matematiska institutionen, SU, Kräftriket. Se sidan 4.

Må 12–09 kl. 15.15. Seminarium i fysik. Professor S. M. Bilenky, JINR, Dubna, och INFN, Torino: *Introduction to neutrino oscillations (lecture).* Seminarierummet, Roslagstullsbacken 11, Stockholms centrum för fysik, astronomi, bioteknik (SCFAB, AlbaNova). Se sidan 9.

Må 12–09 kl. 15.15–17.00. Seminarium i matematisk statistik. Professor Ola Hössjer, SU: *Computing genomwise significance levels in linkage analysis.* Seminarierum 3733, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se Bråket nr 40 sidan 8.

Ti 12–10 kl. 10.15. Seminarium i teoretisk datalogi. Uri Feige, Weizmann Institute, Israel: *On some approximation algorithms of Magnús Halldórsson.* Rum 1537, Nada, KTH, Lindstedtsvägen 3, plan 5. Se sidan 7.

Ti 12–10 kl. 14.00–15.00. Mittag-Leffler Seminar. Jacob Schach Moller, Mainz: *Recent advances in Mourre theory.* Institut Mittag-Leffler, Auravägen 17, Djursholm. Se sidan 8.

Ti 12–10 kl. 15.30–16.30. Mittag-Leffler Seminar. Pavel Kurasov, Lund: *On the essential spectrum of a class of singular matrix differential operators.* Institut Mittag-Leffler, Auravägen 17, Djursholm. Se sidan 5.

On 12–11 kl. 10.00–11.00. Mittag-Leffler Seminar. Pär Kurlberg, Göteborg: *Eigenfunctions of quantized cat maps.* Institut Mittag-Leffler, Auravägen 17, Djursholm. Se sidan 6.

On 12–11 kl. 10.30. Logikseminariet Stockholm-Uppsala. Viggo Stoltenberg-Hansen: *An effective domain representation of* $C^1[0,1]$. Sal 2315, Matematiska institutionen, Polacksbacken, Uppsala universitet. Se sidan 4.

On 12–11 kl. 11.30–12.30. Mittag-Leffler Seminar. Sergey Naboko, St. Petersburg: *Spectral analysis of unbounded Jacobi matrices with periodically modulated entries and the spectral phase transition.* Institut Mittag-Leffler, Auravägen 17, Djursholm. Se sidan 3.

On 12–11 kl. 13.00. Seminarium i statistik. Fil. dr Mattias Villani, Statistik, SU: *Bayesiansk analys av kointegrerade strukturella VAR-modeller.* Sal B705, Statistiska institutionen, SU, Universitetsvägen 10B, plan 7, Frescati.

On 12–11 kl. 13.15–14.15. Seminarium i analys och dynamiska system. Andreas Wannebo: *Hardy inequalities in domains.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se sidorna 6–7.

On 12–11 kl. 14.00–15.00. Presentation av examensarbete i matematik. Steven Wahlström: *Models for nonlinear autonomous systems of differential equations.* Sal 21, hus 5, Matematiska institutionen, SU, Kräftriket. Se sidan 8.

Fortsättning på nästa sida.

Seminarier (fortsättning)

On 12–11 kl. 14.00 – 15.00. Mittag-Leffler Seminar. E. Korotyaev, St. Petersburg and Potsdam: *Invariance principle for inverse problems.* Institut Mittag-Leffler, Auravägen 17, Djursholm. Se sidan 6.

On 12–11 kl. 15.15 – 16.15. Mittag-Leffler Seminar. Gregory Zhislin, Nizhny Novgorod: *Spectral properties of charged systems Hamiltonians with a homogeneous magnetic field.* Institut Mittag-Leffler, Auravägen 17, Djursholm. Se sidan 5.

On 12–11 kl. 16.15. Informell diskussion. Andreas Wannebo: *Hardyolikheter, polynomiella kapaciteter, etc.* Sammanträdesrum 3424 (innanför pausrummet), Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 4. Se sidan 7.

On 12–11 kl. 16.30 – 17.30. Mittag-Leffler Seminar. Thierry Jecko, Rennes: *On semiclassical resolvent estimates for Schrödinger operators at non-trapping energy.* Institut Mittag-Leffler, Auravägen 17, Djursholm. Se sidan 8.

To 12–12 kl. 14.00 – 15.00. Mittag-Leffler Seminar. Leonid Friedlander, Tucson: *Absolute continuity of the spectra of periodic waveguides.* Institut Mittag-Leffler, Auravägen 17, Djursholm. Se sidan 8.

To 12–12 kl. 15.30 – 16.30. Mittag-Leffler Seminar. Ira Herbst, Charlottesville: *Persistence of embedded eigenvalues.* Institut Mittag-Leffler, Auravägen 17, Djursholm. Se sidan 9.

Fr 12–13 kl. 16.00. Populära kollokviet. Professor Johan Håstad, Nada, KTH: *Att approximera svåra optimeringsproblem.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se Bråket nr 40 sidan 7. Före kollokviet kommer Luciakaffe att serveras.

Må 12–16 kl. 13.15 – 15.00. Seminar in Analysis and its Applications. Professor Anders Lindquist, Optimeringslära och systemteori, KTH: *A convex optimization approach to generalized moment problems.* Seminarierum 3733, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se sidan 5.

Må 12–16 kl. 15.15 – 17.00. Seminarium i matematisk statistik. Lars Holst: *Om exkursionslängder i en Brownsk rörelse.* Seminarierum 3733, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se sidan 7.

MITTAG-LEFFLER SEMINAR

Sergey Naboko: Spectral analysis of unbounded Jacobi matrices with periodically modulated entries and the spectral phase transition

Abstract: The spectral analysis of a class of selfadjoint Jacobi matrices J, whose entries have a form of smooth sequences that increase to infinity, multiplied by proper periodic sequences, is to be considered. For this class, criteria for purely absolute continuity of the spectrum or its discreteness, and the asymptotics of the generalized eigenvectors of J are given. Some examples illustrating the stability zones of the spectral structure and the spectral phase transition are presented.

This is joint work with J. Janas.

Tid och plats: Onsdagen den 11 december kl. 11.30 – 12.30 vid Institut Mittag-Leffler, Auravägen 17, Djursholm.

OPTIMIZATION AND SYSTEMS THEORY SEMINAR

Manfred Morari:
Optimal control of hybrid systems

Abstract: Over the last few years we have focused on the development of controller synthesis techniques for discrete time linear systems with constraints, logic and switches (linear hybrid systems). At present, there is a wealth of practical problems of this type which can only be handled by trial and error, thus requiring excessive development time. Our ultimate goal is to provide tools which automatically generate controllers guaranteed to satisfy the designers' specifications for such complex situations in much less time. In this seminar I will first summarize our theoretical efforts, starting with the solution of the famous Linear Quadratic Regulator problem for systems with constraints. Then I will show how these results can be extended to hybrid systems. I will conclude with a number of application studies from areas as diverse as automotive systems, power systems, and biomedical engineering.

Tid och plats: Fredagen den 6 december kl. 11.00 – 12.00 i seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7.

ALGEBRA AND GEOMETRY SEMINAR

Jan-Erik Roos: Explicit calculations
of Hochschild (co)homology of commutative rings

Abstract: There are very few explicit calculations of Hochschild (co)homology for e.g. local commutative noetherian rings that are *not* complete intersections.

The explicit results that I have obtained indicate that the generating series for the Hochschild homology of a local ring R is rational if and only if the ring R is a local complete intersection. As a support for this question/conjecture of mine, I have e.g. the result that there are 23 different isomorphy classes of graded Koszul algebras of embedding dimension 3 that are *not* complete intersections (over an algebraically closed field of characteristic 0), that these isomorphy classes can all be separated by their Hochschild (co)homology series, and that the Hochschild homology series are all irrational functions. The proofs of irrationality are based of the Skolem-Mahler-Lech theorem and are inspired by earlier results by J.-P. Serre (in a different case).

I will recall the necessary background that is needed for this talk: the definitions of Hochschild (co)homology, cyclic homology, Koszul algebras, complete intersections, and the results of Serre (and in this connection the Skolem-Mahler-Lech theorem).

Tid och plats: Måndagen den 9 december kl. 13.15 – 15.00 i rum 306, hus 6, Matematiska institutionen, SU, Kräftriket.

LOGIKSEMINARIET STOCKHOLM-UPPSALA

Viggo Stoltenberg-Hansen:
An effective domain representation of $C^1[0,1]$

Abstract: We present a construction, due to A. Edalat and A. Lieutier, of an effective Scott domain D with the property that $C^1[0,1]$ is topologically embedded into the maximal elements of D.

Tid och plats: Onsdagen den 11 december kl. 10.30 i sal 2315, Matematiska institutionen, Polacksbacken, Uppsala universitet.

MITTAG-LEFFLER SEMINAR

Pavel Kurasov: On the essential spectrum of a class of singular matrix differential operators

Abstract: The essential spectrum of the singular matrix differential operator determined by the following operator matrix

$$\begin{pmatrix} -\frac{d}{dx}\rho(x)\frac{d}{dx} + q(x) & \frac{d}{dx}\frac{\beta}{x} \\ -\frac{\beta}{x}\frac{d}{dx} & \frac{m(x)}{x^2} \end{pmatrix}$$

is studied. It is proven that the essential spectrum of any selfadjoint operator associated with this expression consists of two branches. One of these branches (called regularity spectrum) can be obtained by approximating the operator by regular operators (with coefficients which are bounded near the origin), the second branch (called singularity spectrum) appears due to the singularity of the coefficients.

This is joint work with Professor S. Naboko.

Tid och plats: Tisdagen den 10 december kl. 15.30 – 16.30 vid Institut Mittag-Leffler, Auravägen 17, Djursholm.

MITTAG-LEFFLER SEMINAR

Gregory Zhislin: Spectral properties of charged systems Hamiltonians with a homogeneous magnetic field

Abstract: We find the localization of the essential spectrum and the structure of the pure point spectrum for the systems of atom ions type. The spectrum structure without fixation of pseudomomentum is discovered. For positive ions we prove the existence of an infinite number of isolated eigenvalues, which belong to the discrete spectrum if the pseudomomentum is fixed and to the infinitely degenerated point spectrum if the pseudomomentum is not fixed.

Tid och plats: Onsdagen den 11 december kl. 15.15 – 16.15 vid Institut Mittag-Leffler, Auravägen 17, Djursholm.

SEMINAR IN ANALYSIS AND ITS APPLICATIONS

Anders Lindquist: A convex optimization approach to generalized moment problems

Abstract: In this talk we present a universal solution to the generalized moment problem, with a nonclassical complexity constraint, obtained by minimizing a strictly convex nonlinear functional. This optimization problem is derived in two different ways, first geometrically by path integration of a one-form, and second via duality theory of mathematical programming. The solution to the generalized moment problem is then applied to interpolation problems arising in signal processing and control theory, and to statistical estimation of probability distributions.

Tid och plats: Måndagen den 16 december kl. 13.15 – 15.00 i seminarierum 3733, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7.

MITTAG-LEFFLER SEMINAR

Pär Kurlberg:
Eigenfunctions of quantized cat maps

Abstract: We will give an introduction to Quantized Cat Maps. In particular, properties of eigenfunctions of the so-called "quantum propagator" will be investigated. The action of the quantum propagator on the Hilbert space of states can be viewed as a "function field analogue" of the hyperbolic Laplacian acting on functions on a modular surface. However, the quantum propagator can have very large spectral degeneracies. The degeneracies are related to "quantum symmetries", a commutative group of operators that preserves each eigenspace of the quantum propagator. In analogy with the setting of the modular surface, simultaneous eigenfunctions of all these operators are called Hecke eigenfunctions. The extra structure provided by the quantum symmetries allows us to prove a strong version of Quantum Ergodicity for Hecke eigenfunctions. (Quantum Ergodicity is an equidistribution statement for the limiting behaviour of the eigenfunctions.) We can also obtain nontrivial bounds on the supremum norms of the Hecke eigenfunctions, as well as determine their value distribution for certain prime values of the inverse Planck's constant.

Tid och plats: Onsdagen den 11 december kl. 10.00 – 11.00 vid Institut Mittag-Leffler, Auravägen 17, Djursholm.

MITTAG-LEFFLER SEMINAR

E. Korotyaev:
Invariance principle for inverse problems

Abstract: We solve the inverse problem for the map: a function q to "spectral data" for the Schrödinger operator with a periodic potential, which is a function from the function q. We apply these results to the Camassa-Holm equation. The result is published in *Int. Math. Res. Notice* 2002, no. 38.

Tid och plats: Onsdagen den 11 december kl. 14.00 – 15.00 vid Institut Mittag-Leffler, Auravägen 17, Djursholm.

SEMINARIUM I ANALYS OCH DYNAMISKA SYSTEM

Andreas Wannebo:
Hardy inequalities in domains

Abstract: The history of Hardy inequalities in domains is shortly discussed. Here we have Nečas' work and then the development by Kufner et al. in the early 1960's. A short note by Ancona (1981) punctured the hope for different degrees of smoothness of the boundary as criteria. Wannebo (1983), (unpubl.) brought in capacities and polynomial capacities (uniformly). Polynomial capacities is an earlier concept invented by Maz'ya. Then Ancona (1986) and Lewis (1988) found ways to treat the most wanted case. They also gave a certain converse statement. Then Wannebo (1990), (1991) gave results that together with unpublished work and reports contain most of what is known on the subject in a restricted sense, i.e. without considering best constants and without studying inequalities too far from usual Hardy inequalities.

There are two sets of ideas at play in this historic account, one using local coordinates, with one-dimensionality at bottom, and one based on geometrical ideas. The geometrical ideas (non-one-dimensional) are by far more powerful.

(Continued on the next page.)

The aim of the talk is to make a not too detailed study of the geometrical possibilities and ideas.

The Hardy inequalities considered are a family of inequalities modelled on the one-dimensional Hardy inequality, of course not in Hardy's original formulation with no weight in the upper term, but with all compatible weights exponents on both sides and with zero boundary condition at the origin.

In order to picture the inequality for domains, change to distance to the boundary with exponents, and also take gradients instead of derivatives, to this add boundary values zero in some sense. This will be generalized.

Finally we study the case with an operator like the Laplacian instead of the (second order) gradient in the Hardy inequalities.

Tid och plats: Onsdagen den 11 december kl. 13.15 – 14.15 i seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7.

INFORMELL DISKUSSION

Onsdagen den 11 december kl. 16.15 är en informell diskussion planerad att äga rum med undertecknad. Ämnet är Hardyolikheter, polynomiella kapaciteter, etc. Till diskussionen kallas alla som är intresserade av texter om detta ämne. Texter kommer att finnas tillgängliga. Jämför med seminariet som undertecknad håller samma dag kl. 13.15 (se sidorna 6 – 7).

Plats: Sammanträdesrum 3424 (innanför pausrummet), Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 4.

Andreas Wannebo

SEMINARIUM I TEORETISK DATALOGI

Uri Feige:

On some approximation algorithms of Magnús Halldórsson

Abstract: Several approximation algorithms will be presented. A common theme for these algorithms is that they were either designed by Magnús Halldórsson (perhaps with coauthors), or are based on ideas that appeared in work of Halldórsson. Another common theme is that the algorithms have clever but simple proofs of correctness. Among the algorithms presented will be a recent algorithm with the current best approximation ratio for finding a maximum clique in a graph.

Tid och plats: Tisdagen den 10 december kl. 10.15 i rum 1537, Nada, KTH, Lindstedtsvägen 3, plan 5.

SEMINARIUM I MATEMATISK STATISTIK

Lars Holst:

Om exkursionslängder i en Brownsk rörelse

Sammanfattning: För en endimensionell Wienerprocess fram till en fix tidpunkt studeras tiden för sista besöket i 0 och de storleksordnade tidsavstånden mellan besöken. Explicita resultat härleds från enkel slumpvandring.

Tid och plats: Måndagen den 16 december kl. 15.15 – 17.00 i seminarierum 3733, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7.

MITTAG-LEFFLER SEMINAR

Jacob Schach Moller:
Recent advances in Mourre theory

Abstract: In the talk I will review two recent related extensions of Mourre's local commutator method. The motivation for these extensions comes from two problems: A model for a confined system interacting with a quantized massless scalar field (the massless Pauli-Fierz model), and a model for a molecule in a classical laser field (the many-body AC-stark model). These two problems have in common that standard Mourre theory does not seem to apply.

Tid och plats: Tisdagen den 10 december kl. 14.00 – 15.00 vid Institut Mittag-Leffler, Auravägen 17, Djursholm.

PRESENTATION AV EXAMENSARBETE I MATEMATIK

Steven Wahlström:
Models for nonlinear autonomous systems of differential equations

Abstract: The purpose of this essay is explaining some of the central ideas and methods of nonlinear autonomous systems of differential equations. One aspect of this is the problem of classifying the critical points of such a system with respect to their nature and stability. It will be seen in this work that under suitable conditions this problem can be solved for a given nonlinear system by studying the phase portraits and a related linearized system.

Tid och plats: Onsdagen den 11 december kl. 14.00 – 15.00 i sal 21, hus 5, Matematiska institutionen, SU, Kräftriket.

MITTAG-LEFFLER SEMINAR

Thierry Jecko: On semiclassical resolvent
estimates for Schrödinger operators at non-trapping energy

Abstract: For two-body semiclassical Schrödinger operators, I want to discuss the equivalence: The boundary values of the resolvent at λ are $O(h^{-1})$ as bounded operators on weighted spaces iff the corresponding classical flow is non-trapping at energy λ. For the "if" part, I would consider different proofs and also a new one. For the over part, I would recall a result by X. P. Wang.

Tid och plats: Onsdagen den 11 december kl. 16.30 – 17.30 vid Institut Mittag-Leffler, Auravägen 17, Djursholm.

MITTAG-LEFFLER SEMINAR

Leonid Friedlander:
Absolute continuity of the spectra of periodic waveguides

Abstract: Let G be a domain in $\mathbf{R}^n$, $n \geq 2$, that is periodic in x_1-direction and bounded in the complementary directions. Under an additional symmetry assumption, we prove that the spectrum of an x_1-periodic selfadjoint second order differential operator in G is purely absolutely continuous.

Tid och plats: Torsdagen den 12 december kl. 14.00 – 15.00 vid Institut Mittag-Leffler, Auravägen 17, Djursholm.

SEMINARIUM I FYSIK

S. M. Bilenky: Neutrino masses, mixing and oscillations

Abstract: Basics of neutrino mixing and oscillations and a short review of the data are presented. Oscillations in the atmospheric and solar ranges of Δm^2 are considered in the framework of the three-neutrino mixing. The CHOOZ bound on $|U_{e3}|^2$ in the three-neutrino case is presented and different aspects of neutrinoless double β decay are discussed.

Tid och plats: Fredagen den 6 december kl. 13.15 i seminarierummet, Roslagstullsbacken 11, Stockholms centrum för fysik, astronomi, bioteknik (SCFAB, AlbaNova).

SEMINARIUM I FYSIK

S. M. Bilenky: Introduction to neutrino oscillations (lecture)

Abstract: A short history of the neutrino. See-saw mechanism of neutrino mass generation. States of flavour neutrinos. Evolution of the flavour neutrino states, oscillations. Atmospheric and solar neutrinos. Smallness of $|U_{e3}|^2$, decouling. Neutrinoless double β decay, absolute neutrino masses.

Tid och plats: Måndagen den 9 december kl. 15.15 i seminarierummet, Roslagstullsbacken 11, Stockholms centrum för fysik, astronomi, bioteknik (SCFAB, AlbaNova).

MITTAG-LEFFLER SEMINAR

Ira Herbst: Persistence of embedded eigenvalues

Abstract: In most cases eigenvalues embedded in continuous spectrum are very unstable. In this talk I will show how to identify manifolds of local perturbations which keep the embedded eigenvalue nearby on the real axis.

Tid och plats: Torsdagen den 12 december kl. 15.30 – 16.30 vid Institut Mittag-Leffler, Auravägen 17, Djursholm.

MONEY, JOBS

Columnist: Hans Rullgård, Department of Mathematics, SU. E-mail: hansr@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 2002. 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://www.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.

(Continued on the next page.)

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. Matematiska institutionen vid Linköpings universitet ledigförklarar minst en anställning som doktorand i numerisk analys, 20 december. Info: Lars Eldén, 013-28 21 83, e-post laeld@mai.liu.se, Tommy Elfving, 013-28 21 86, e-post toelf@mai.liu.se, Inga-Britt Hofstam, 013-28 14 01, inhof@mai.liu.se. Web-info: http://www.liu.se/jobbdb/show.html?785.
12. Kansli DEF vid KTH utlyser postdoc-stipendier samt en doktorandanställning vid någon av institutionerna för fysik, matematik eller mekanik finansierade av medel från Göran Gustafssons Stiftelse. Behörig till doktorandtjänsten är den som avlagt eller kommer att avlägga civilingenjörsexamen eller motsvarande under tiden 1 mars 2002 – 28 februari 2003. Sista ansökningsdag för postdoc-stipendierna via kontaktpersonerna på KTH är den 24 januari 2003 och för doktorandanställningen den 21 februari 2003. Web-info: http://www.kth.se/student/def/.

Old information

Money, to apply for

13. Riksbankens jubileumsfond utlyser två resestipendier om 100 000 kr ur Nils-Eric Svenssons Fond. Stipendium kan sökas av disputerad forskare, ej över 40 år, knuten till forskningsenhet vid universitet, för kortare tids vistelse i framstående europeisk forskarmiljö, 9 januari 2003. Info: 08-506 264 01, 08-506 264 30 (fax), margareta.buler@rj.se.
14. Stiftelsen G. S. Magnussons fond utlyser stipendier och forskningsanslag för doktorander och disputerade forskare, 31 mars 2003. Ansökan skall ske på särskild blankett. Web-info: http://www.kva.se/KVA_Root/swe/awards/scholarships/detail_scholarships.asp?grantsId=8.
15. Utbildningsvetenskapliga kommittén inom Vetenskapsrådet utlyser konferens- och resebidrag för i första hand unga och/eller nydisputerade forskare inom det utbildningsvetenskapliga forskningsområdet. Ansökningar kan skickas in fortlöpande under hela året. Web-info: http://www.vr.se/sokbidrag/index.asp?id=190&dok_id=1404.
16. 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 4 ovan.
17. Wenner-Gren Stiftelserna utlyser gästföreläsaranslag, avsedda att möjliggöra för svenska forskare eller institutioner att inbjuda utländska gästföreläsare. Anslag sökes av den inbjudande forskaren eller institutionen. Ansökningar kan inlämnas när som helst under året. Web-info: http://www.wenner-grenstift.a.se.

Jobs, to apply for

18. Institutionen för matematisk statistik vid Lunds universitet söker en doktorand i matematisk statistik, 20 januari 2003. Info: Tobias Rydén, 046-222 47 78, e-post Tobias.Ryden@matstat.lu.se. Web-info: http://personalserver.pers.lu.se/document/1995.pdf.
19. Matematiska institutionen vid Uppsala universitet söker en biträdande lektor i matematik, 19 december. Info: Lars-Åke Lindahl, 018-471 32 06, e-post Lars-Ake.Lindahl@math.uu.se. Web-info: http://www.offentliga-jobb.mediacom.se/web/cfml/fj.cfm?nJobNo=43155&nLangNo=4.
20. Matematiska institutionen vid Uppsala universitet söker en biträdande lektor i matematisk statistik, 19 december. Info: Lars-Åke Lindahl, 018-471 32 06, e-post Lars-Ake.Lindahl@math.uu.se. Web-info: http://www.offentliga-jobb.mediacom.se/web/cfml/fj.cfm?nJobNo=43157&nLangNo=4.
21. Malmö högskola utlyser en post-doc-tjänst i tillämpad matematik med specialisering i undervattensnavigering, 9 december. Info: Anders Heyden, 040-665 77 16, e-post Anders.Heyden@ts.mah.se, Stefan Diehl, 040-665 76 17, e-post Stefan.Diehl@ts.mah.se, Zoltan Blum, 040-665 76 08, e-post Zoltan.Blum@ts.mah.se. Web-info: http://www.mah.se/platsann.asp?DNR=526.