BRÅKET

Information om seminarier och högre undervisning i matematiska ämnen i Stockholmsområdet

NR 26 **FREDAGEN DEN 3 SEPTEMBER 2004**

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 9 september kl. 13.00.

Kurser

Torsten Ekedahl, Rikard Bøgvad: Algebraic number theory. Se sidan 6.

Per Sjölin: Integrationsteori. Se sidan 7.

Krister Svanberg: Convexity and optimization in linear spaces. Se sidorna 6 – 7.

Money, jobs: Se sidorna 8 – 9.

SEMINARIER

Fr 09–03 kl. 12.15 – 12.45. Presentation av examensarbete i matematik. Anton Appelberg: *On certain maps of symmetric modules.* Seminarierum 3733, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se Bråket nr 25 sidan 6.

Må 09–06 kl. 15.15 – 16.00. Seminarium i finansiell matematik. Thomas Hugmark presenterar sitt examensarbete: *On forward curve dynamics in the electricity market — dependence on hydro balance.* Seminarierum 3733, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se Bråket nr 25 sidan 2.

Ti 09–07 kl. 11.15. Plurikomplexa seminariet. *(Observera tiden!)* **Christer Kiselman,** Uppsala: *Holomorphic functions on discrete structures.* Rum 306, hus 6, Matematiska institutionen, SU, Kräftriket. Se sidan 3.

Ti 09–07 kl. 14.00 – 15.00. Mittag-Leffler Seminar. Krzysztof Debicki, Wroclaw University: *Gaussian processes and queueing theory.* Institut Mittag-Leffler, Auravägen 17, Djursholm.

Ti 09–07 kl. 14.15. Plurikomplexa seminariet. *(Observera tiden!)* **Robert Berman,** Göteborg: *Holomorphic Morse inequalities on manifolds with boundary.* Rum 306, hus 6, Matematiska institutionen, SU, Kräftriket. Se sidan 7.

Ti 09–07 kl. 15.30 – 16.30. Mittag-Leffler Seminar. Evsey Morozov, Petrozavodsk State University: *Weakly regenerative queueing processes: Stability analysis and simulation.* Institut Mittag-Leffler, Auravägen 17, Djursholm.

On 09–08 kl. 13.15 – 14.15. Seminarium i analys och dynamiska system. Mattias Jonsson, KTH: *Potential theory on trees.* Seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se sidan 3.

Fortsättning på nästa sida.

Seminarier (fortsättning)

On 09–08 kl. 13.15 – 15.00. Logikseminariet Stockholm-Uppsala. Helmut Schwichtenberg, Ludwig-Maximilians-Universität München: *Program extraction from classical proofs.* Sal 3513, MIC, Polacksbacken, Uppsala universitet. Se sidan 4.

On 09–08 kl. 15.15. Presentation av examensarbete i matematisk statistik. Tom Persson, SU: *Combining leading indicators and a flash estimate.* Rum 306 (Cramérrummet), hus 6, Matematiska institutionen, SU, Kräftriket. Se sidan 7.

To 09–09 kl. 10.15. Presentation av examensarbete i matematisk fysik. Erik Lötstedt, KTH: *ADHM classification of instantons, classical and in noncommutative geometry.* Seminarierummet i hus 11 (rum 112:028), Roslagstullsbacken 11, Stockholms centrum för fysik, astronomi, bioteknik (SCFAB, AlbaNova).

To 09–09 kl. 14.00 – 15.00. Mittag-Leffler Seminar. Richard Serfozo, Georgia Institute of Technology, Atlanta: *Response times in $M/M/s$ fork-join networks.* Institut Mittag-Leffler, Auravägen 17, Djursholm.

To 09–09 kl. 15.30 – 16.30. Mittag-Leffler Seminar. Sem Borst, CWI Amsterdam: *Flow-level performance of channel-aware scheduling algorithms in wireless data.* Institut Mittag-Leffler, Auravägen 17, Djursholm.

Fr 09–10 kl. 12.00 – 13.00. GRU-seminarium i matematik: *Lärarnas arbetsbelastning.* Sammanträdesrum 3424 (innanför pausrummet), Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 4. Se nedan.

Må 09–13 kl. 13.15 – 15.00. Seminar in Analysis and its Applications. Harold Shapiro: *Some extremal problems for analytic functions.* Seminarierum 3733, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se sidan 4.

Må 09–13 kl. 15.00. Docentföreläsning. Lars Engebretsen, Nada, KTH: *Valfrihetens pris.* Sal E3, KTH, Osquars Backe 14, 2 tr. Se sidan 5.

Må 09–13 kl. 15.15 – 17.00. Seminarium i finansiell matematik. Adri de Ridder, Matematisk statistik, KTH, och CEFIN: *Long-run abnormal share-price performance and share repurchases. Evidence from Sweden.* Seminarierum 3733, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Se sidan 5.

GRU-SEMINARIUM I MATEMATIK

Lärarnas arbetsbelastning

Sammanfattning: Är arbetsbelastningen rimlig för de lärare som är involverade i grundutbildningen? Flera nya arbetsmoment har tillkommit på senare år, till exempel kontinuerlig examination och arbete med kurshemsidor. Behöver vi se över vårt system för arbetstidsberäkning? Detta och relaterade frågor diskuteras vid höstens första GRU-seminarium i matematik.

Alla undervisande lärare och doktorander vid institutionen är välkomna. Den som anmäler sig till Lars Filipsson, e-post lfn@math.kth.se, senast dagen före seminariet får en lunchsmörgås.

Tid och plats: Fredagen den 10 september kl. 12.00 – 13.00 i sammanträdesrum 3424 (innanför pausrummet), Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 4.

PLURIKOMPLEXA SEMINARIET

Christer Kiselman:
Holomorphic functions on discrete structures

Abstract:

1. Background: The problem of describing the shape of a three-dimensional object is important in many applications. Images in medicine and industry are often three-dimensional nowadays.

One should be able to store the description of a shape in a computer and be able to compare it with other shapes, using some measure of likeness. One approach to shape description is to introduce a triangulation of the surface of the object and then map this triangulation to a sphere. The position of a point on the surface is then a function on the sphere, and can be expanded in terms of spherical harmonics. This approach, initiated by C. Brechbühler, G. Gerig, and O. Kübler, will be the background of my talk, and it leads to the study of harmonic, or more generally subharmonic, functions on a graph or a directed graph.

It turns out that the values of harmonic functions often cluster together in an undesirable way, and to get rid of this clustering is a special problem of importance in the shape-description project of Ola Weistrand. There are various remedies, one being to use different weights in the definition of harmonicity.

2. The contents: All the above-mentioned phenomena form the background of my talk. I shall give an introduction to the study of harmonic, subharmonic and holomorphic functions on discrete structures. I shall mention the Dirichlet problem for subharmonic functions; explicit solutions in some simple cases will be given. In other cases, however, explicit formulas corresponding to well-known solutions in the classical setting are apparently not known.

Also holomorphic functions can be defined and studied on discrete structures. In my talk I shall present two definitions and give some basic results on holomorphic functions of one or several variables, especially concerning domains of holomorphy and the Hartogs extension phenomenon.

Tid och plats: Tisdagen den 7 september kl. 11.15 i rum 306, hus 6, Matematiska institutionen, SU, Kräftriket.

SEMINARIUM I ANALYS OCH DYNAMISKA SYSTEM

Mattias Jonsson:
Potential theory on trees

Abstract: For most humans it is pretty clear what a tree is, but for mathematicians the situation is a little more complicated. I will discuss quite general trees: basically real line segments welded together in such a way that no cycles appear, but with no bounds on the branching. On such trees one can define a natural Laplace operator which effectively combines the usual Laplacians on the real line and on a (finite) simplicial tree. In particular, this Laplacian allows us to identify Borel measures with certain functions on the tree. Time permitting, I will also discuss some surprising applications of the analysis to the study of the singularities of plurisubharmonic functions in dimension two.

This is joint work with Charles Favre at CNRS, Paris.

Tid och plats: Onsdagen den 8 september kl. 13.15 – 14.15 i seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7.

LOGIKSEMINARIET STOCKHOLM-UPPSALA

Helmut Schwichtenberg: Program extraction from classical proofs

Abstract: It is well-known that any classical proof of a specification of the form $\forall x \exists y B$ with B quantifier-free can be transformed into a constructive proof of the same formula. However, when it comes to extraction of a program from a proof obtained in this way, one easily ends up with a mess. Therefore, some refinements of the standard transformation are necessary. In the talk I will explain a refined method of extracting reasonable and sometimes unexpected programs from classical proofs, and demonstrate its interest by means of some examples.

The talk is based on joint work with Ulrich Berger and Wilfried Buchholz.

Tid och plats: Onsdagen den 8 september kl. 13.15 – 15.00 i sal 3513, MIC, Polacksbacken, Uppsala universitet.

SEMINAR IN ANALYSIS AND ITS APPLICATIONS

Harold Shapiro: Some extremal problems for analytic functions

Résumé: A type of problem which has been much studied is, among the elements of some Banach space X of holomorphic functions in the unit disk, satisfying some normalization conditions (such as taking prescribed values at some given points), to find one of smallest norm. If X is a Hilbert space, the solution is particularly simple and can be expressed in terms of the reproducing kernel of X. But, matters quickly become vastly more difficult if we impose the further restriction that only functions without zeros in the disk are permitted, and that will be the subject of this talk. To illustrate, let us consider the simplest nontrivial problem of this sort, taking for X the Hardy space H^2 consisting of functions whose Taylor coefficients are square summable. Let $A > 0$ and let $E(A)$ denote the subclass of H^2 consisting of functions whose Taylor expansions have the form $1 + Az + \cdots$, where $\cdots$ signifies terms of degree greater than 1. It is easy to see that the unique f in $E(A)$ of least norm is the linear polynomial $1 + Az$. Consider now the same problem with the additional restriction imposed that only functions without zeros in the disk are considered. For A not exceeding 1, nothing changes and the unique extremal is again $1 + Az$. But, what happens when $A > 1$? This problem was solved (within a more general program) by S. Ya. Khavinson some years ago. The extremal function turns out to be of the form $C(z-1)\exp[a(z+1)/(z-1)]$ where C and a are constants depending on A.

Now consider the analogous problem, but with, in place of H^2, the Bergman space of square integrable holomorphic functions in the disk. Again, $1 + Az$ is extremal when A does not exceed 1. When $A > 1$, the extremal is not known! A very well motivated guess is that it is of the form $C(z-(1+a))\exp[a(z+1)/(z-1)]$.

In this talk we shall present, first, a new and simpler derivation of S. Ya. Khavinson's H^2 result. Then we shall turn to the analogous Bergman space problems, and derive necessary conditions for extremals: for example, they are bounded in the disk, and satisfy remarkable moment identities.

This is joint work with Dov Aharonov, Catherine Beneteau, and Dmitry Khavinson.

Tid och plats: Måndagen den 13 september kl. 13.15 – 15.00 i seminarierum 3733, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7.

DOCENTFÖRELÄSNING

Lars Engebretsen: Valfrihetens pris

Sammanfattning: Ett kombinatoriskt optimeringsproblem ses oftast som en statisk enhet, där det gäller att maximera någon viss, given, målfunktion under vissa bivillkor. Problemet att lösa optimeringsproblem ses ibland som en kamp mellan två personer: en fiende som försöker konstruera en ”svår” målfunktion och ”svåra” bivillkor, och en hjälte som försöker räkna ut svaret.

Detta synsätt passar dock inte uppenbart in på problem som härrör från ekonomiska system eller andra stora komplexa system med många aktörer. Dessa system kännetecknas i stället av att varje spelare i systemet har sin egen, subjektiva, uppfattning om vad som är bäst för just honom eller henne. Det naturliga optimeringsproblemet blir då att varje spelare försöker maximera sin egen nytta, enligt sin egen uppfattning om vad som är bäst. Märkligt nog finns det trots detta i många fall ett objektivt mått som kombinerar spelarnas individuella åsikter; detta mått tolkas sedan vanligtvis som priset för en viss produkt eller tjänst på en marknad.

Att det finns ett objektivt pris är tilltalande i sig, men det vore än mer tilltalande om det gick att räkna ut det. Det visar sig att man i vissa fall faktiskt kan räkna ut de objektiva priserna med rimlig ansträngning, men att det i de flesta realistiska fall är svårt att räkna ut dem.

Tid och plats: Måndagen den 13 september kl. 15.00 i sal E3, KTH, Osquars Backe 14, 2 tr.

SEMINARIUM I FINANSIELL MATEMATIK

Adri de Ridder: Long-run abnormal share-price performance and share repurchases. Evidence from Sweden

Abstract: In this study I examine long-run share price performance and share repurchases in Sweden during the period 2000 to June 2004. New legislation in Sweden, with effect as of March year 2000, together with full disclosure of details about the repurchase programmes, i.e. actual execution dates, size, and price paid for the repurchased shares, provides new empirical insights about long term valuation effects of share repurchases. In the analysis I use several methods to quantify long-run price performance. My findings can be summarized as follows. Despite a short period, almost 70 Swedish firms have embarked share repurchase programmes, and the value of the programmes during the first four years is roughly 110 bn Skr (15 billion US-dollar). I find that firms with repurchases outperformed both the overall return on the market and a matched firm by market size. The mean 3-year holding period return is substantial and varies between 23.62 % (raw returns) and 69.02 % (market adjusted). Furthermore, the average 3-year holding period return (raw returns) is larger for small market cap firms compared to large firms, 34.71 % and 13.01 % respectively. The results suggest several avenues for further analysis. First, the firms characteristics merit further investigation. Second, compared to previous studies of repurchases, the magnitude with Swedish empirical data is intriguing and calls for further analysis of the framework for share repurchases.

Tid och plats: Måndagen den 13 september kl. 15.15 – 17.00 i seminarierum 3733, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7.

GRADUATE COURSE IN MATHEMATICS

Torsten Ekedahl, Rikard Bøgvad: Algebraic number theory

Starting on Friday, September 10, at 10.15 – 12.00 a course in Algebraic number theory will be held in the seminar room (room 306) of the Department of Mathematics, Stockholm University, Kräftriket.

The course will start by covering the basic material on local and global theory, completions, Galois theory, etc. Its eventual goal is to explain, but not prove the results, of class field theory and its relation with things such as reciprocity laws.

The course will to a large extent be self-contained but a first course in number theory (such as Talteori fdk) will probably help the student.

The lectures will be mixed between lectures given by the teachers (Bøgvad and Ekedahl) and short lectures by the participants. The notions will be illustrated by computations using an appropriate computer algebra system, and exercises involving such calculations will be presented.

No particular text-book will be followed and instead lecture notes will be distributed. However, for the basic material almost any book on algebraic number theory will do (there are by now a large number of them), and class field theory is also covered by many of them. Here are a few possibilities:

Cassels & Fröhlich: *Algebraic Number Theory.* (This book is the best of them all in our opinion.) Lang: *Algebraic Number Theory.* Fröhlich & Taylor: *Algebraic Number Theory.* Weil: *Basic Number Theory.* (The book by Weil is very different from the rest in that it emphasises topological and analytic arguments.) Neukirch: *Algebraic Number Theory.*

Torsten Ekedahl Rikard Bøgvad

GRADUATE COURSE IN OPTIMIZATION AND SYSTEMS THEORY

Krister Svanberg: 5B5720 Convexity and optimization in linear spaces, 5 p

This course is compulsory for graduate students in optimization and systems theory, but other graduate students interested in optimization theory are also welcome.

Lecturer and examiner: Krister Svanberg, e-mail krille@math.kth.se, telephone 08-790 71 37.

Content: Basic theory for normed linear spaces. Minimum norm problems in Hilbert and Banach spaces. Convex sets and separating hyperplanes. Adjoints and pseudoinverse operators. Gateaux and Frechet differentials. Convex functionals and their corresponding conjugate functionals. Fenchel duality. Global theory of constrained convex optimization. Lagrange multipliers and dual problems. Local theory of constrained optimization. Kuhn-Tucker optimality conditions in Banach spaces.

Prerequisites: Undergraduate mathematics corresponding to a master degree in engineering physics, including a basic course in finite-dimensional optimization.

Literature: David G. Luenberger: *Optimization by Vector Space Methods,* John Wiley & Sons. Paperback, ISBN: 0-471-18117-X.

(Continued on the next page.)

Examination: Examination through home assignments during the course, and a final oral examination.

Time and place for lectures: Tuesdays at 13.15 – 15.00 in seminar room 3721, Department of Mathematics, KTH, Lindstedtsvägen 25, floor 7. First lecture: September 7, 2004. Approximately 14 lectures will be needed.

PLURIKOMPLEXA SEMINARIET

Robert Berman:
Holomorphic Morse inequalities on manifolds with boundary

Abstract: Let L be a holomorphic line bundle over a compact complex manifold. When X has no boundary, Demailly's holomorphic Morse inequalities bound the dimensions of the Dolbeault cohomology groups with values in high tensor powers of the line bundle, in terms of an integral over X of the curvature of the line bundle L. I will show how to extend these bounds to the case when X has a boundary, by adding an integral over the boundary of X, involving an average of the curvature of the line bundle and the Levi curvature of the boundary. The most interesting case is when X is a pseudoconcave manifold with a positive line bundle L. Such a manifold may be obtained by "making a hole" in a manifold without boundary. The goal is then to show that (a high power of) L has "many" holomorphic sections. I will also point out some relations to symplectic and contact geometry.

Tid och plats: Tisdagen den 7 september kl. 14.15 i rum 306, hus 6, Matematiska institutionen, SU, Kräftriket.

PRESENTATION AV EXAMENSARBETE I MATEMATISK STATISTIK

Tom Persson:
Combining leading indicators and a flash estimate

Abstract: A Flash Estimator (FE), using monthly production data to obtain early estimators on quarterly values of a Manufacturing Variable is combined with Leading Indicators (LI), both monthly and quarterly. The leading information is extracted from the Business Tendency Survey using Kalman Filters. The result is called a Leading Flash Estimator (LFE). LFE proves to be more timely than a conventional FE and more accurate than the LI.

Tid och plats: Onsdagen den 8 september kl. 15.15 i rum 306 (Cramérrummet), hus 6, Matematiska institutionen, SU, Kräftriket.

FÖRDJUPNINGSKURS I MATEMATIK

Per Sjölin: Integrationsteori, 5B1479

Föreläsningarna i Integrationsteori, 5B1479, (Matematisk analys, MA429) kommer att äga rum på torsdagar kl. 10.15 – 12.00 i seminarierum 3721, Institutionen för matematik, KTH, Lindstedtsvägen 25, plan 7. Den första föreläsningen blir den 9 september. Kurslitteratur är Friedman: *Foundations of Modern Analysis.*

Välkomna!
Per Sjölin

MONEY, JOBS

Columnist: Hans Rullgård, Department of Mathematics, SU. E-mail: hansr@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/~hansr/mj.html.

Unless stated otherwise, a given date is the last date (e.g. for applications), and the year is 2004. 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.
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

Money, to apply for

11. Wenner-Gren Stiftelserna utlyser ett antal anslag och stipendier. Web-info: http://www.swgc.org/anvisningar.html.

Jobs, to apply for

12. Institutionen för informationsvetenskap vid Uppsala universitet söker en universitetslektor i statistik, 75 %, 6 september. Info: Anneli Edman, 018-471 10 25, R. Pettersson, 018-471 11 48. Web-info: http://www.personalavd.uu.se/ledigaplatser/2240unlekt.html.
13. Matematiska och systemtekniska institutionen vid Växjö universitet söker en doktorand i tillämpad matematik/teknisk fysik och elektroteknik, 14 september. Info: Andrei Khrennikov, 0470-70 87 90, e-post Andrei.Khrennikov@msi.vxu.se, Sven Nordebo, 0470-70 81 93, e-post Sven.Nordebo@msi.vxu.se. Web-info: http://www.vxu.se/jobb/040914_doktorand_msi.html.

Old information

Money, to apply for

14. Magn. Bergvalls Stiftelse utlyser anslag till vetenskapliga forskningsprojekt för svenska forskare som avlagt doktorsexamen (ej resestipendier). Upplysningar genom SEB Enskilda Banken, Stiftelser och företag, telefon 08-763 68 97. Sista ansökningsdag 15 september.
15. Från stiftelsen P. E. Lindahls fond utdelas sex forskningsstipendier om vardera 120 000 kr. Stipendier utdelas för vetenskapliga studier eller fortsatt praktisk utbildning inom eller utom Sverige. Sökande skall ha avlagt doktorsexamen år 1998 eller senare eller vara behörig att antagas till forskarutbildning inom någon av de filosofiska eller medicinska fakulteterna i riket och får inte inneha tjänst hos stat eller kommun. Ansökan skall vara poststämplad senast den 30 september. Web-info: http://www.kva.se/KVA_Root/swe/awards/scholarships/detail_scholarships.asp?grantsId=15.

(Continued on the next page.)

16. Hellmuth Hertz' Foundations postdoktorsstipendier vill ge yngre forskare möjlighet till vidareutbildning och forskning vid välrenommerat icke svenskt universitet (eller motsvarande) under en längre period (minst 6 månader). Stipendium är öppet för sökande som avlagt doktorsexamen högst 3 år före ansökningsdatum vid svenskt universitet eller teknisk högskola inom ämnesområdena naturvetenskap, medicin eller teknik. Sista ansökningsdag 30 september. Info: 046-13 25 28, e-post kansli@fysiografen.org. Web-info: http://www.fysiografen.org/.
17. Sverige-Amerika Stiftelsen utlyser stipendier för masters- till postdocstudier i USA och Canada. Sista ansökningsdag 15 september. Web-info: http://www.sweamfo.se/stip.html.
18. Letterstedtska föreningen utlyser anslag till bland annat anordnande av nordiska konferenser och seminarier och gästbesök av nordiska forskare. Anslag utdelas vid två tillfällen under 2004; ansökningar skall vara inkomna senast 15 februari respektive 15 september till Letterstedtska föreningens huvudstyrelse, Box 22333, 104 22 Stockholm. Web-info: se punkt 6 ovan.
19. Sweden-Japan Foundation (SJF) utlyser stipendier för studier, forskning samt examensarbete och praktik på högskolenivå i Japan. Stipendierna är främst avsedda för studier inom teknik, naturvetenskap, ekonomi, juridik, medicin och handel. Beslut fattas vid två tillfällen per år. Sista ansökningsdagar är den 1 mars och den 1 oktober. Info: SJF, 08-611 68 73. Web-info: http://www.swejap.a.se.
20. Från Knut och Alice Wallenbergs Stiftelse ställs anslag 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. Medel kan även — efter rektors bedömning — undantagsvis disponeras för utländska gästforskare." Bidrag kan sökas under hela året. Info: Anette Nyström, 08-790 70 59. Web-info: se punkt 4 ovan.

Jobs, to apply for

21. Statistiska institutionen vid Lunds universitet utlyser utbildningsbidrag/anställning som doktorand i statistik, 15 september. Info: Björn Holmquist, 046-222 89 26, e-post Bjorn.Holmquist@stat.lu.se, Krzysztof Nowicki, 046-222 89 18, e-post Krzysztof.Nowicki@stat.lu.se. Web-info: http://www2.stat.lu.se/education/grad/UtbBidragHT04.htm.