



# INFOMAT

## NOVEMBER 2021

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### Generalforsamling Norsk Matematisk Forening, mandag 14. desember 2021 kl. 1800

Sted: Lunchrom Matematisk Institutt UiB/Zoom, lenke sendes til medlemmene på mail.

#### Foreløpig saksliste:

1. Godkjennelse av innkallingen
2. Valg av møteleder og referent
3. Årsberetning
4. Regnskap
5. Valg
6. Eventuelt

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INFOMAT kommer ut med 11 nummer i året og gis ut av Norsk Matematisk Forening. Deadline for neste utgave er alltid den 15. i neste måned. Stoff til INFOMAT sendes til

**arnebs at math.uis.no**

Foreningen har hjemmeside <http://www.matematikkforeningen.no/>  
Ansvarlig redaktør er Arne B. Sletsjøe, Universitetet i Oslo

# Matematisk kalender

På grunn av den pågående pandemien kan flere av arrangementene bli utsatt eller avlyst. Følg med på web-sidene.

**2022**

**Juni:**

**12.-19. Seminar Sophus Lie**, Nordfjordeid  
<<https://www.mathematik.uni-marburg.de/agricola/SSL2021/>>

## Nye doktorgrader

**Mads Hustad Sandøy** ved NTNU forsvarte 30. august 2021 sin avhandling *Higher homological algebra and support varieties* for graden PhD.

Veiledere har vært Professor Øyvind Solberg og Professor Petter A. Bergh, begge ved NTNU.

**Sammendrag:**

The motivation and background for the thesis lies within a theory of support for finite dimensional algebra developed via Hochschild cohomology. Not all finite dimensional algebras have a good theory of support varieties, and classically, there have been two essentially disjoint classes of algebras for which sufficient conditions to have a good theory can be easily verified: twisted periodic algebras and Koszul algebras. Roughly speaking, we investigate certain generalizations of both classes, and connect and characterize these with and in terms of the higher hereditary algebras introduced by Iyama and others.

Additionally, we study the possibility of having a bimodule version of a tensor product formula for such support varieties, we classify certain classes of monomial higher representation finite algebras, and we partially recover and extend a classification by Shumbana Said that determines which self-injective radical cube zero algebras have a good theory of support varieties.

**Stine Marie Berge** ved NTNU forsvarte 10. september 2021 sin avhandling *Quantitative Unique Continuation and Eigenvalue for the Laplacian* for graden PhD.

Veiledere har vært Professor Eugenia Malinnikova (hovedveileder) og Professor Peter Linqvist (medveileder), begge ved NTNU..

**Sammendrag:**

Avhandlingen studerer flere aspekter ved laplaceoperatoren, spesielt med hensyn på egenverdier og egenfunksjoner. En stor del av avhandlingen er dedikert til kvantitativ unik utvidelse ulikheter for harmoniske funksjoner og egenfunksjoner til laplaceoperatoren. Blant annet gir vi en kvantitativ unik utvidelses ulikhet for harmoniske funksjoner over generelle hyperoverflater. Videre bestemmer vi den beste mulige vekstraten med hensyn på bølgetallet for tre-ball ulikheter for laplaceoperatoren på riemannske modell-mangfoldigheter.

Siste del av avhandlingen er dedikert til å vise egenverdiulikheter for flere egenverdiproblemer (f.eks. dirichlet-, neumann-, steklovproblemet) der laplaceoperatoren er i stor grad tilstedevarende. Vi sammenligner også dirichletegenverdiene på baller i riemannske modell-mangfoldigheter med dirichletegenverdiene på baller i euklidisk rom. Krumningen til den underliggende riemannske mangfoldigheten spiller en sentral rolle i avhandlingen fra start til slutt.

## Ledige stillinger

### LEDIG STILLING PÅ FÆRØYENE

Vi har en stilling ledig indenfor de matematiske fag på Naturvidenskab ved Færøernes universitet. (Fróðskaparsetur Føroya)

Det er ingen hemmelighed, at det er sværere at tiltrække kvalificeret arbejdskraft til yderområderne, som Færøerne jo er, end til f.eks. universiteter i de større byer i Danmark. Derfor ville det glæde mig rigtig meget, hvis I vil dele denne stillingsannonce med eventuelle interesserende kandidater.

Af samme grund er stillingen også ret bred. I udgangspunktet er det en videnskabelig stilling - enten som fastansat lektor eller fireårig adjunkt med mulighed for lektorbedømmelse efter de fire år. Hvis der ikke skønnes at være ansøgere med de rigtige kvalifikationer, så kan stillingen også blive en ren undervisningsstilling. Forskningsområderne for den videnskabelige stilling er i udgangspunktet meget brede og afhænger af kandidatens kompetencer - det kunne være i ren matematik, men også gerne statistik eller anvendt matematik/statistik (f.eks. matematisk modellering, biostatistik o.s.v.). Dog er det meget vigtigt, at vedkommende har gode undervisningskompetencer i matematik og statistik, og det er en stor fordel, hvis vedkommende forstår skandinavisk.

Hvis I kender nogen, som måtte være interesseret, så vil det som sagt glæde mig, hvis I vil sende dette videre.

<https://www.setur.fo/en/the-university/jobs/recruitment-to-a-new-academic-position-in-mathematics-statistics-in-its-faculty- of-natural-sciences-and-technology/>

## LEDIG STILLING I TROMSØ

UiT - The Arctic University of Norway is looking to fill a permanent position as an associate professor in pure mathematics within the field of Algebra and its applications. We are particularly interested in strengthening the research activities within the Lie-Størmer Center for Fundamental Structures in Computational and Pure Mathematics which will unite and advance the research frontiers in computational and pure mathematics by exploring fundamental mathematical structures and their increasing significance for modern computational problems. Preference will be given to candidates who can demonstrate connections to the current research activities in the Algebra group and the Lie-Størmer Center. The successful candidate will join the Department of Mathematics and Statistics and will be associated to the Algebra group.

<https://www.jobbnorge.no/en/available-jobs/job/213932/associate-professor-in-pure-mathematics>

# Kunngjøringer

## THE 9TH HEIDELBERG LAUREATE FORUM

The 9th Heidelberg Laureate Forum (HLF) will take place in Heidelberg, Germany between September 18–23, 2022.

At the HLF, all winners of the Fields Medal, the Abel Prize, the ACM A.M. Turing Award, the Nevanlinna Prize, and the ACM Prize in Computing are invited to attend. In addition, young and talented computer scientists and mathematicians are invited to apply for participation. The previous HLFs have been an exceptional success. The HLF serves as a great platform for interaction between the masters in the fields of mathematics and computer science and young talents. Over the course of the week-long conference, young researchers will be given the exclusive possibility to profoundly connect with their scientific role models and find out how the laureates made it to the top of their fields. As described by a young researcher, *The balance between scientific sessions and informal meetings, as well as discussions on the most up-to-date subjects was just perfect! As a young researcher, this was an experience I'll not ever forget, and I believe the contacts I made will have a positive impact on my future career.*

Applications for participation at the 9th HLF are open in three categories: Undergraduate/Pre-Master, Graduate PhD, and PostDocs. The application period for the 9th HLF runs from November 11, 2021, until February 11, 2022.

Young researchers at all phases of their careers (Undergraduate/Pre-Master, Graduate PhD, or PostDocs) are encouraged to complete and submit their applications by February 11 (midnight CET).

The IMU Adhering Organizations and national mathematical societies can also nominate young researchers. Nominated persons get "priority treatment", but, since there may be too many nominations, they have no acceptance guarantee.

See the webpage <https://application.heidelberg-laureate-forum.org> for the online application and

nomination forms. The deadline for application is **February 11, 2022**.

All applications that are completed and submitted by the deadline are meticulously reviewed by an international committee of experts to ensure that only the most qualified candidates are invited. There are 100 spaces available for each discipline of mathematics and computer science. All applicants will be notified by the end of April 2022 whether or not they are invited. If meeting in person is not safely possible, a digital alternative will be developed that creates spaces for effective, sustainable interaction.

## CURRENT CIMPA CALLS

### Call for CIMPA-ICTP Fellowships 2022 "Research in Pairs"

**Presentation:** The CIMPA-ICTP fellowships program "Research in Pairs" makes it possible for researchers in mathematics based in a developing country to come to Europe to collaborate with a colleague for a period of at least 6 weeks. During this period, it is expected that these two people will work together on a well-substantiated research project, mainly in the institute of the European colleague. The maximum amount of support is 10,000 euros.

**Deadline:** Applications for a visit between March and the end of December 2022 are open until 31st of December 2021.

To find out more: <https://www.cimpa.info/en/node/7159>

### Propose a CIMPA Course!

**Presentation:** The CIMPA offers a programme of CIMPA Courses for the most mathematically or economically deprived areas. The CIMPA Courses program consists in funding the visit of a lecturer to teach a master or research level course in Mathematics within the geographic areas of activities of CIMPA (Africa, Central or South America, Asia). All requests for funding will be for a course with a well-defined topic, for a period of 1 to 4 weeks.

**Deadline:** This call for projects is permanent, CIMPA course projects can be submitted throughout the year.

To find out more: <https://www.cimpa.info/en/node/50>

### Propose a CIMPA Course online!

**Presentation:** An (open) online CIMPA course is online teaching at master or research level in Mathematics for selected students from developing countries.

**It exists in two formats:**

A course for students from one (or several) institute located in a developing country which locally coordinates the project; An ?open? format for a basic Master course in the direction of a broader audience. CIMPA will organize a call for applications to students from developing countries to attend the course. The teacher will then make a selection. The laureates will be able to interact remotely with the teacher during several weeks, ask questions about the lectures and do exercises.

**Deadline:** This call for projects is permanent, CIMPA course projects can be submitted throughout the year.

To find out more: <https://www.cimpa.info/en/node/6574>

## KANDIDATER TIL STYRET I EMS

At the meeting of the Council of the European Mathematical Society to be held in Bled in summer 2022 there will be elections to the following positions in the Executive Committee:

\*President;

\*One vice president;

\*Treasurer;

\*A possible election of Members-at-large may follow, if the above positions are filled with candidates from the current EC.

Those elected will take office on the 1st of January 2023.

According to statutes, member societies and also representatives of individual members can make suggestions for these positions. Please send your nominations (nomination letter, candidate's CV and statement in PDF format) by December 31, 2021 to the EMS Office (ems-office@helsinki.fi).