Dear colleagues,

I must say that I am really happy that our society has now been able to open up and that we now can come together physically for lectures, meetings and socially at and off work! Even though we got good at using Zoom, Teams etc, it is much better to meet physically! However, I expect and hope that going forward we will think more carefully before booking tickets to travel and consider which meetings can be done in an online fashion. Doing some meetings in an online fashion saves time, money and is also good for our environment.

Since taking over as Head of department, I have met with many of the research groups at the department and must say that I feel privileged to have so many good colleagues who are so eager to do their best for our students and for our research. There are many good ideas about how to improve our offering to students and we will follow these up, for example at Voss later this Month.

Some of the discussions we have are about how to obtain external funding to pursue exciting research ideas. And I also get to see another side of this on a national level through being part of a portfolio board at the Research Council of Norway. Unfortunately, only a small percentage of the applications are granted funding. Many complain that this implies a huge loss in terms of time spent to prepare applications. While I agree to some extent, I think a large portion of the time spent on preparing applications, is in fact useful as part of the research efforts of the applicants. And even though the review system has its weaknesses, the research ideas do get evaluated and the feedback can be useful also for applicants who do not receive funding. I really appreciate all the time that you put into writing applications and the excellent support that our administration, and in particular Stefanie, is providing.

I am excited to see the outcome of each and every application, but of course the SFF application to be submitted later in October is extra exciting and we are doing our best to support the efforts of Fedor and his team the last days before the deadline! The Centre for Social Algorithms will be a fantastic addition to our activity, and I really do hope for a positive decision next year!

I wish you all a nice weekend!
Inge

The Dean’s Blog – Gunn Mangerud

The Dean’s blog aims to inform us of ongoing work and processes at Faculty of Mathematics and Natural Sciences.

Her latest postings:
- Slik mener styret vårt at vi kan bli fremragende innenfor disiplinene
- Slik skaper vi universitetet uten vegger
- Endelig kan vi ønske velkommen til en (semi-) åpen campus!
Re-opening of the master coffee machine and fruit in the reception!

The corona related restrictions are now lifted, and that also implies re-opening of services at the department meant for increasing the circulation of colleagues in our building.

As from Monday 4th October, our dear master coffee machine in the dining room 4th floor will be running again as normal.

You are all also very welcome to drop by the Reception for a fruit and a smile from Ingrid 😊. Fruits will be delivered Mondays and Wednesdays.

PhD updates

There’s a new PhD in town - Congratulations Diana Davidova!

Diana successfully defended her thesis “On properties of bent and almost perfect nonlinear functions” on 14.09.2021

Here you can learn more about her project

Congratulations to Diana, the Selmer centre and supervisors Lilya Budaghyan and Claude Carlet.

NORBIS courses:

Bioinformatics for functional meta-omics

**Dates:** 1-5 November 2021. **Location:** NMBU Ås

This course will introduce, explore and assess the vast array of sequencing technology and bioinformatic methods that are available to address these core issues. The course will include an array of contrasting tools to decrypt microbial communities, including those that assess community structure (metagenomics, predictive genome-reconstruction) and function (metatranscriptomics, metaproteomics). It shall involve “hands-on” experience with these different types of data, and also explore approaches used to integrate and use it to interpret community function. More information and registration here.

Metabolic pathway analysis

**Dates:** November 29 – December 3. **Location:** NTNU, Trondheim

This course will provide an introduction to the computational analysis and reconstruction of both small and genome-scale metabolic networks. The goal is to make students familiar with state-of-the-art computational tools and databases, as well as providing the students with hands-on experience. Furthermore, we will cover the mathematical basis of constraint-based analysis of genome-scale metabolic models and provide a foundation for stability and control analysis of dynamic models. More information and registration here.

Modern methods for analyzing survival and time to event data – imb9335

**Dates:** December 6-10, 2021. **Location:** Domus Medica, Runde Auditorium, University of Oslo

The analysis of survival data and other types of time-to-event data are central in modern medical research and a number of other fields. A large number of methods for analysing time-to-event data have been developed, but many researchers have no knowledge of survival analysis, or they only know the most basic methods. The aim of the course is to give PhD-students and other researchers in biostatistics, bioinformatics, epidemiology, and related fields an up-to-date overview of statistical methodology for analyzing time-to-event data. More information and registration here.
**Department / CEDAS seminar, 7 October**

**Abstract:** Neighbor Embedding (NE) that aims to preserve pairwise similarities between data items has been shown to yield an effective principle for data visualization. However, even the currently best NE methods such as Stochastic Neighbor Embedding (SNE) may leave large-scale patterns such as clusters hidden despite of strong signals being present in the data. To address this, we propose a new cluster visualization method based on Neighbor Embedding. We first present a family of Neighbor Embedding methods which generalizes SNE by using non-normalized Kullback-Leibler divergence with a scale parameter. In this family, much better cluster visualizations often appear with a parameter value different from the one corresponding to SNE. We also develop an efficient software which employs asynchronous stochastic block coordinate descent to optimize the new family of objective functions. The experimental results demonstrate that our method consistently and substantially improves visualization of data clusters compared with the state-of-the-art NE approaches.

**Speaker:** Zhifeng Yang received his Doctoral degree from Helsinki University of Technology, Finland in 2008. He is working as a professor in Norwegian Open AI Lab and Department of Computer Science at the Norwegian University of Science and Technology. He also works as IEEE Senior Member and leads the project "ShuttleNet: Scalable Neural Models for Long Sequential Data" (NFR 2018–2023). His current research interests include data visualization, cluster analysis, learning representations for structured data.

Please find the web announcement here.

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**Department seminar, 4 November**

Each year, the Research Council of Norway (RCN) has a call for Researcher Projects, inviting researchers from all fields to apply for funding to deliver new insights, advance research frontiers, promote scientific careers, establish and broaden international cooperation, facilitate excellent researcher training and more. With a deadline on 2 February 2022, researchers can apply in one of the following categories: Researcher Project for Scientific Renewal, Researcher Project for Young Research Talents, or Three-year Researcher Project with International Mobility. All of these calls come with a different set of (eligibility) requirements. During the seminar, we will go through the main characteristics of each call and make you aware of the most important specificities. We will finish the seminar with a Q&A session with successful grantees, Professor Lilya Budaghyan (Selmer Center), Researcher Mateus de Oliveira Oliveira (Algorithms), Professor Tom Mønch (Computational Biology Unit), and Professor Susanna Röblitz (Computational Biology Unit).

The seminar will be hosted by Stefanie Meyer, research coordinator at the Department of Informatics. Stefanie has worked as a research advisor for third funding for the past 6 years and has a broad overview over different local, national, and international funding bodies (including RCN, Trond Mohn Foundation, ERC, Marie Skłodowska Curie Actions).

Please find the web announcement here.
NordicAIMeet2021, 1 - 2 November

Learn more and register here

Speakers:

Nasjonal konferanse: Digitalisering i høyere utdanning 2021, 4. november
Universitetet i Bergen har i samarbeid med Unit og Direktorat for høyere utdanning og kompetanse gleden av å invitere til nasjonal konferanse for digitalisering i høyere utdanning 4. november 2021 i Universitetsaulaen / digitalt.

Meld deg på innen 12. oktober!

Om årets konferanse
I år setter vi fokus på hvilke muligheter og utfordringer utvikling av kunstig intelligens og bruk av store datamengder representerer for fremtidens høyere utdanning. Hvordan forholder vi oss til mengden av tilgjengelige dataspor, hva er mulig og hvilken nytte kan det ha for oss? Hvordan endrer digitaliseringen våre fagfelt - og hvordan utdanner vi studenter til fremtidens arbeidsliv?

Konferansen for digitalisering i høyere utdanning er spesielt rettet mot ledere og beslutningstakere i faglig og administrativ linje på alle nivåer. Vår ambisjon er å legge til rette for dialog og diskusjon rundt de strategiske, pedagogiske, praktiske og didaktiske problemstillingene som sektoren møter i digitaliseringsarbeidet.

FRONT-conference 2021: Likestilling i academia, 8 november
Tema for årets konferanse er likestilling i akademia. Vi har invitert anerkjente forskere på fagfeltet til diskusjon og det blir lansering av boka «Likestilling i akademia – fra kunnskap til endring» av Øystein Gullvåg Holter og Lotta Snickare (redaktører).

Tid og sted: 8. nov. 2021 09:30–16:00, Hotel Bristol Mer informasjon her.
NORA Annual Conference, 17-18 November
Register for the first inaugural NORA Annual Conference 2021. Register for the conference now!

We are thrilled to announce the launch of the first Norwegian Artificial Intelligence Research Consortium Conference (NORA) Annual Conference, which will take place at Grand Bergen, November 17th and 18th, 2021!

The conference aims to gather the Norwegian research community within the field of Artificial Intelligence and create a platform where invited speakers and participants can share research, ideas, theories, models and new perspectives, and interact with peers from the field. Knowledge sharing and interaction will be at the center of the conference, which will in turn foster a strong community of researchers and practitioners, while bridging the gap between young researchers, startups and industry.

Publishing Open Access and Data Management Plans

The University of Bergen Library has prepared very good websites on the current status of local, national and international open access (OA) policies as well as their services related to OA publishing. Please have a look at their websites and make yourself familiar with the different policies as well as the existing publishing deals with several of the academic publishers. UiB’s policy for Open Science can be found by following the link. Furthermore, UiB has a publication fund for OA that can cover the article processing charges (APC) when publishing in eligible open access journals.

Before you (your group) pay(s) any fees for making an article openly available, please consult the webpages to see if you are entitled to a discount, may get the fees refunded through the publication fund, or maybe don’t even have to pay anything based on an existing agreement with the publisher!

If you have questions, please contact the department’s research coordinator Stefanie Meyer.

Data Management Plans

A data management plan, or DMP, is a formal document that outlines how research data are handled throughout the whole project life cycle – including the planning phase, the operational phase, and project conclusion – as well as beyond the lifetime of the project. DMPs are a key component of Open Science practices, where the overall principle is that research data should be “as open as possible, as closed as necessary”.

UiB has its own Open Science policy, where it is stated that all research projects led by UiB researchers shall have a DMP. For externally funded projects, also the funding agency’s Open Science principles and DMP requirements have to be followed.

In principle, project leaders should strive to manage their research data according to the FAIR principle. FAIR means that research data have to be findable, accessible, interoperable and reusable.

The exact content of a data management plan will vary according to research field and type of project. It is important to determine what “research data” actually entails. The University of Bergen Library (UB) has included some comments regarding this on their website, showing that both entirely new data and data generated through the analysis of existing
data (secondary data) need to be described. Analysis software/program code created in the research process could also be relevant to consider. Special rules apply to sensitive data.

For more details and guidance, please have a look at UB’s website on Data Management Plans (DMPs). Here you can find information on what should be included in a DMP, how to write it, where one can get support when developing it, upcoming training events and a list of links to several online tools that can help you to structure your DMP.

Useful courses for handling of research data
The goal of the University of Bergen is that data resulting from research activity should be made readily available for reuse in accordance with FAIR-principles. UiB Library Research Support offers following courses to help meet these requirements:

Data management Plan
The Norwegian Research Council and Horizon 2020 require projects to submit a data management plan (DMP). A data management plan describes how data in a research project will be collected, processed and made available.

The courses «Introduction to DMP” and “DMP workshop” give you a short introduction to what a data management plan is, why you need it, and how to write one. In the workshops you will have the opportunity to work on your own DMP using a digital DMP tool, and then share your DMP with other participants and get feedback from peers and experts on your own DMP.

- October 15th at 10:00-10:45 (introduction to DMP, in Norwegian). Sign up here.
- November 12th at 10:00-14:00 (introduction to DMP + workshop). Read more. Sign up here.

How can you make your research data open and FAIR?
Researchers are encouraged to make their data openly available as early as possible in the research process, and most funders, e.g. Norwegian Research Council or Horizon Europe, and publishers require that the research data from a project is made openly available. But how can you do this in practice, and where?

In the course you will get a short introduction to how you can make your research data open and FAIR, and how to archive your data in our institutional archive UiB Open Research Data.

- October 1st at 10:00-11:30. Sign up here.

Finding & reusing research data
Sharing and re-using quality-assured research data is considered good scientific practice. Re-using existing datasets as secondary data avoids unnecessary duplication of efforts and can inspire new avenues of research.

For example, new questions or methods can be applied to a dataset, or data from different studies or disciplines can be integrated. In this course you will learn how you can use existing datasets as a resource for your research. The course consists of three short modules, and you can participate in either or all of the modules.

- November 26th at 09:30-12:00. Sign up here

Software Carpentry course in research computing skills: Shell, Python, Git
Reproducible research benefits strongly from learning some research computing skills. Are you tired of manually moving files? Would you like to be able to efficiently analyze data and create fancy plots? Would you like to learn programming, but you do not know where to start? Would you like your data analysis to be more reproducible? This is the course for you!

The Software Carpentry course in research computing skills will provide researchers with computational tools to address their research questions in new or more efficient and reproducible ways. The course is aimed at novices and no previous programming knowledge is required.
September 20th-24th, 9:00-13:00. Read more & sign up.
Upcoming funding opportunities

On a monthly basis, the department releases a comprehensive overview over upcoming funding opportunities on its website for research support services. Please inform research coordinator Stefanie Meyer about all planned and ongoing funding applications! This includes both applications you coordinate yourself, and those where you are included as a partner/collaborator! At this point, we would like to highlight the following upcoming calls and funding/research-related events:

**Enabling technologies.** There is an open call for Collaborative Projects on Digital Security and Artificial Intelligence, Robotics and Autonomous Systems. “The objective of this call is to develop new knowledge within one or both topics for the call: Digital security and/or AI, Robotics and Autonomous Systems. [...] The project must involve two or more Norwegian partners that are not research organisations. Partners that are not research organisations must together participate with a minimum of 10 per cent of the total project costs.” **Application deadline: open-ended.**

**Collaborative Project to Meet Societal and Industry-related Challenges.** The Research Council of Norway has issued a preliminary call “to develop new knowledge and generate research competence needed by society or the business sector to address important societal challenges. The projects are to encourage and support collaboration between research organisations and stakeholders from outside the research sector that represent societal and/or industry-related needs for knowledge and research competence.” Projects are required to include at least two Norwegian partners from the non-academic sector. “The partners from the business sector or other parts of society must participate actively in the project. At least 10 per cent of the project’s total costs must be used by these partners.” **Application deadline: 9 February 2022.**

**Researcher projects.** The RCN has published preliminary calls for Researcher Projects for Scientific Renewal, Researcher Projects for Young Talents, and Three-year Researcher Projects with International Mobility. **Application deadline: 2 February 2022.** Info meeting at the dept: 4 Nov 2021.

**ERC.** Call deadlines for the 2022 calls are:
- Synergy Grant ’22, 10 November 2021
- Starting Grant ’22, 13 January 2022
- Consolidat. Grant ’22, 17 March 2022
- Advanced Grant ’22, 28 April 2022

**ERC funding explained:** Watch the ERC’s instructional videos.

**Meltzer Research Fund.** Researchers* at the University of Bergen can apply for financial support for academic travels and sabbaticals. In addition, the fund supports talented students and PhD cand. with project stipends that can be used for covering costs in connection with their projects, for example research travel, field work, equipment, materials etc. **Application deadline: 1 December 2021.** *Please also have a look at UiB’s website.
Vacant positions

**PhD position in Informatics - Computational Biology and Machine Learning**
Please find [the full announcement here](#). Closing date: 07.10.2021.

**PhD Research Fellow in Informatics - Knowledge Representation and Machine Learning**
Please find [the full announcement here](#). Closing date: 28.10.2021.

**SEAS postdoctoral research fellow in topological and geometric machine learning for marine sustainability**
Please find [the full announcement here](#). Closing date: 31.10.2021.

**Postdoctoral Research Fellow position within Informatics - Symbolic Algorithms**
Please find [the full announcement here](#). Closing date: 14.11.2021.

**PhD Research Fellow in Informatics - Symbolic Algorithms**
Please find [the full announcement here](#). Closing date: 14.11.2021.

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**SPIRE.** SPIRE-funds are strategic funds that shall help to facilitate international research collaboration. One can apply for funds in two different categories: 1) proposal support, and 2) invitation of guest researchers. **Application deadline: 1 December 2021.**

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**Webinar: 25 November 2021.** [Registration is open.](#)

**Webinar for applicants: Researcher projects.** This webinar will be held in English and targets those who want to apply for a researcher project (deadline 2 February 2021). "Among the topics of the webinar you will find: (i) The differences between the three calls and how to choose the right call; (ii) The thematic areas in the calls and description of relevance to the topic; (iii) Application procedures. You will have the opportunity to ask questions in the second half of the webinar."

**Webinar: 7 December 2021.** [Registration is open.](#)

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SPIRE. SPIRE-funds are strategic funds that shall help to facilitate international research collaboration. One can apply for funds in two different categories: 1) proposal support, and 2) invitation of guest researchers. **Application deadline: 1 December 2021.**

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**Need help?**

Please contact research coordinator Stefanie Meyer if you have questions with regard to your planned and ongoing funding applications as well as all contractual work related to external funds! All applications and agreements/contracts need to be approved by the department leadership. In addition, you can have a look at our websites for research support services, where you will also find a list of our services.
Welcome to the cake club (Kakeklubben) on Wednesdays!

Kakeklubben aims to help our international colleagues to practice Norwegian while spending nice time together with people across group borders. Club meetings are held on Wednesdays at 12 o'clock in Akvariet, 4th floor.

You bring your own lunch, and we serve cake and coffee. Everyone is welcome, no matter how much Norwegian you speak. We hope to see you there, both internationals and Norwegians!

Welcome to Yoga on Wednesdays!

Yoga is a great way to reduce stress and tensions from work. Yoga classes are held at our department on Wednesdays at 2:30 p.m. to 3:30 pm at the CBU seminar room in 5th floor.

Our professional yoga instructor, Kjersti Naess, is teaching in English. No signing up, and no participation fee. Please bring your own yoga mat. We also have some mats for loan. All employees are welcome – also those of you who never tried yoga before.

And remember: When you are too busy to go to the yoga class – then is when you need it the most!