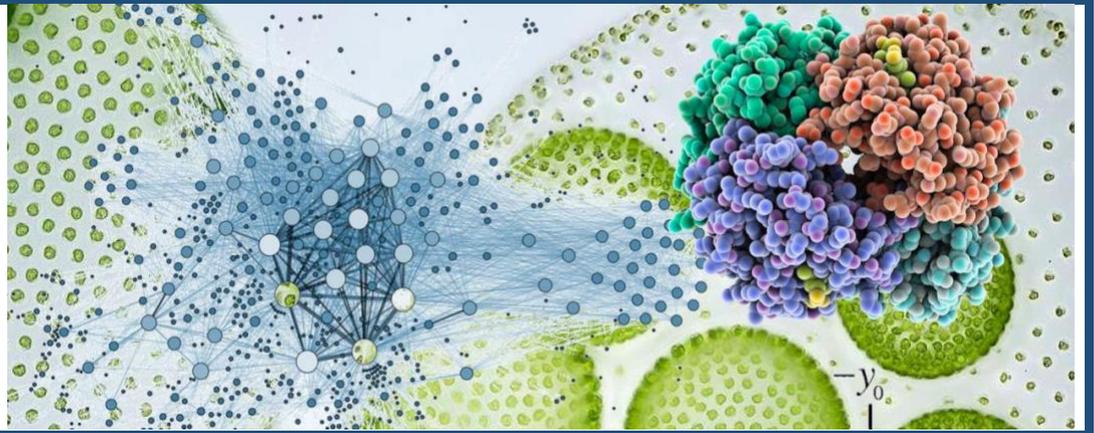


NEWSLETTER

Department of
Informatics



No. 8/2021
23rd April 2021



Editor-in-chief: Pinar Heggernes. Editor: Linda Vagtskjold. Contributions or comments to the newsletter are very welcome.

Dear colleagues,

April is behaving exactly as predicted in the [last newsletter](#). After a cold start, we have had sunny and hot days and sunny and cold days, with still a bit of rain and snow in between. Fortunately, the cold wind from North is about to ease, and we can expect a sunny and warm weekend.

The month of April is also among the most exciting in our academic calendar, since the deadline for [application to higher education](#) is in the middle of this month. This year's application numbers are announced today! I am very happy to let you all know that our department has done exceptionally well in attracting many new applicants to our programs. In total, the number of first-priority applicants to our bachelor programs is 55% higher than last year, and we have reached a new record of 523 first-priority applicants!

The greatest increase is in the interest for [datasikkerhet](#); this program increases its number of applicants by more than 150%, and it has now 3.6 applicants per available study slot. [Bioinformatics](#) increases by more than 100% with 3.7 applicants per study slot. Our largest program, [datateknologi](#), has an increase of 80%, and this program has now 3 applicants per study slot. (All numbers refer to first-priority applicants, i.e., applicants who have our programs as their first priority.)

Our [one-year program in informatics](#) is doing very well also this year, with more than 4 applicants per study slot, and our bachelor program in [data science](#) has kept its numbers from last year, with almost 2 applicants per study slot. We notice a slight decrease in our joint bachelor program [informatics-mathematics-economy \(IMØ\)](#). Notice however that we are a partner in a new 5-year program in [information technology and economy](#), which has attracted more than 9 applicants per study slot. Some of our IMØ applicants might have gone there, so in they will still end up being our joint students. We are also partner in a new [bachelor program in AI](#), which also did very well with respect to number of applicants.

The most wonderful news concern perhaps our master studies. Our [master program in informatics](#) attracted in this round 200 applicants, which is a new record and an increase of more than 50% compared to last year! Not surprisingly, a large portion of the applicants would like to go in the direction of machine learning, but there is a significant increase of interest in all directions, most notable in secure and reliable communication, in optimization, and in visualization.

With all these numbers, I believe that there will be a real selection among the applicants to most of our programs, and it will be very interesting to see the minimum average grades of those who actually get accepted to various programs.

I would like to thank all my colleagues at the department, both in scientific and in administrative roles, as well as our faculty's study and communication sections, for contributing to this success.

Even more grateful I am to our students of informatics who have created such an outstandingly active, welcoming, social, and fruitful learning environment that I believe is a huge factor in our increasing popularity among applicants.

I wish you all a nice weekend!

-Pinar



The Dean's Blog – Helge K. Dahle

[The Dean's blog](#) aims to inform us of ongoing work and processes at the Faculty of [Mathematics and Natural Sciences](#).

His latest postings: [Aldersgruppa under 30 år bør vaksine-prioriterast](#) - [Bruk din stemme ved universitetsstyret](#)! - [Stemmerett. Abelpriis. Og snart er det påske](#)



Current Issues [På Høyden](#) - [Khrono](#) – [News from NFR](#) – [News from UiB](#) – [Informatics on Facebook](#)

IMPORTANT: Multi-factor authentication

Have you activated two-factor authentication for logging into UiB systems from outside of campus? Very soon, it will not be possible to log in unless you have activated this, so please take the time to do it right away.

[Please find the instructions here.](#)

New Identity and access management (IAM) service introduced in June 2021

In June 2021, UiB will introduce the [new Identity and access management service](#), Felles tilgangsstyring (IAM), for the universities and university colleges in Norway. UiB is the first institution to implement the service, which will be introduced throughout the sector. Felles tilgangsstyring is about giving students, scientific and administrative staff, and guests the right access to digital systems, services and resources; as well as ending access for users who no longer require it.

Why Felles tilgangsstyring?

- To ensure that the right people get the right access, at the right time and for the right reason
- A more user-friendly service for students and staff
- To establish standardized digital solutions throughout the entire sector
- For increased information security, and better overview and control over users and their access

For you as an employee, this means:

- That Sebra is replaced, and employees must use the new system, Rapid Identity
- A new system to activate user accounts and change passwords
- That new employees and guests must be registered in SAP (payroll system) before they can get a user account and access. Students must be registered in the Felles Studentsystem (FS)

Introducing the candidates running for the MN-faculty board election 2021!

Today we introduce the candidates running for the MN-faculty board election 2021.

[Please have a look here for further details of each candidate!](#)

The election runs from 9 am 25th May – 12 pm 28th may 2021

Current corona related restrictions

- Digital teaching.
- Campus and all study halls and reading rooms are still open.
- Home office is still encouraged, but you are welcome to use your campus office if you for some reason need it for having optimal working conditions.
[Please register here](#) if you have not already registered.
- The distance rule on campus is one meter. Please pay attention to the marking in reading halls, seminar rooms and common rooms, like the lunch-room.
- The use of face masks applies in all places where it is not possible to keep one meter.
- Sharing offices is now ok if a good distance between the desks is possible.
- Physical events that are not necessary to arrange should be postponed or changed to a digital event.
- The maximum limit for events is 20 with fixed seats.
- All unnecessary travel should be postponed. For travels abroad, much stricter quarantine rules are inserted.



Overview of Department Thursday seminars booked the rest of this semester

29 th April	John Reid: " History of coarrays and SPMD parallelism in Fortran "
6 th May	Himan Abdollahpouri: " User-centered Investigation of Popularity Bias in Recommender Systems " (CEDAS seminar)
20 th May	Peter Van Roy, Université catholique de Louvain: «History of Oz»
27 th May	Speed Talks

Welcome to department seminar, April 29

History of coarrays and SPMD parallelism in Fortran

John Reid presents his paper, followed by discussion.



John Reid Photo: Privat

The paper "History of coarrays and SPMD parallelism in Fortran" was authored by John Reid, Bill Long and Jon Steidel:

"The coarray programming model is an expression of the Single-Program-Multiple-Data (SPMD) programming model through the simple device of adding a codimension to the Fortran language. A data object declared with a codimension is a coarray object. Codimensions express the idea that some objects are located in local memory while others are located in remote memory. Coarray syntax obeys most of the same rules for normal array syntax. It is familiar to the Fortran programmer so the use of coarray syntax is natural and intuitive. Although the basic idea is quite simple, inserting it into the language definition turned out to be difficult.

In addition, the process was complicated by rapidly changing hardware and heated arguments over whether parallelism should be supported best as an interface to language-independent libraries, as a set of directives superimposed on languages, or as a set of specific extensions to existing languages.

In this paper, we review both the early history of coarrays and also their development into a part of Fortran 2008 and eventually into a larger part of Fortran 2018. Coarrays have been used, for example, in weather forecasting and in neural networks and deep learning."

The presentation starts at 14:15, but the zoom meeting will be open from 14:00.

[Join Zoom Meeting](#)

Meeting ID: 649 7425 8534

Password: Wyfq9a?h

LECTURE

🕒 29.04.2021 - 14.15–16.00

📍 Zoom

📅 [Add to calendar](#)

John Reid spent most of his career performing research in the Numerical Analysis Group that began at Harwell and moved to the Rutherford Appleton Laboratory (RAL) in 1990. He is currently an Honorary Scientist at RAL. Much of this work resulted in Fortran codes in HSL (formerly Harwell Subroutine Library). He has been actively involved in Fortran standardization since 1983 and was Convenor (chair) from 2000 to 2017 for ISO/IEC JTC1/SC22/WG5. He was the main author of a series of OUP books giving informal descriptions of the successive Fortran standards, all with explanations. For the last ten years, his main Fortran interest has been in the standardization of coarrays.



[Web announcement with participation link here.](#)

Welcome to the Christie Conference, April 27

The Christie Conference will take place on April 27th. UiB is pleased to invite you to the conference which will be digital, and participation is free of charge this year. We hope you would like to attend, whether you are a student or staff at the University of Bergen.

The Christie Conference is one of Norway's most important meeting places for academia and business, culture and society. We invite guests and participants from business, cultural life, the public sector and NGOs. This year's conference is in collaboration with Norwegian School of Economics (NHH). Some of the sessions will be held in English, such as the first session with keynote speaker John van Reenen.



The theme for the Christie Conference 2021 is "The New Economy".

The "new economy" provides us with a range of so-called "super-star" companies. Google is more than a search engine, and Amazon is more than an online bookstore. Can we imagine our neighbourhood grocery store replaced by a super star delivering everything we need to our doorsteps? Arguably, this development presents great opportunities and potential efficiency gains, but it also changes society and makes us more vulnerable in certain areas. What consequences will this development have for the Nordic Welfare Model? How can we secure the tax revenues of the welfare state in this context, and how can we protect our personal data? Does this development make us more vulnerable for corruption and fraud? [See program](#) [Registration](#)

Important notice: our own PhD student **Nikolay Kaleyski** from the Selmer group will be one of three young researchers giving a presentation at 12:25 under the headline "Forskning i front". Wow, Nikolay!!

Welcome to CEDAS/Department seminar, May 6

CEDAS SEMINAR

User-centered Investigation of Popularity Bias in Recommender Systems

Abstract: Recommendation and ranking systems are known to suffer from popularity bias; the tendency of the algorithm to favor a few popular items while under-representing the majority of other items. Prior research has examined various approaches for mitigating popularity bias and enhancing the recommendation of long-tail, less popular, items. The effectiveness of these approaches is often assessed using different metrics to evaluate the extent to which over-concentration on popular items is reduced. However, not much attention has been given to the user-centered evaluation of this bias; how different users with different levels of interest towards popular items (e.g., niche vs blockbuster-focused users) are affected by such algorithms. In this talk, I first give an overview of the popularity bias problem in recommender systems. Then, I show the limitations of the existing metrics to evaluate popularity bias mitigation when we want to assess these algorithms from the users' perspective and I propose a new metric that can address these limitations. In addition, I present an effective approach that mitigates popularity bias from the user-centered point of view. Finally, I investigate several state-of-the-art approaches proposed in recent years to mitigate popularity bias and evaluate their performances using the existing metrics and also from the users' perspective. Using two publicly available datasets, I show that many of the existing popularity bias mitigation techniques ignore the users' tolerance towards popular items. The proposed user-centered method, on the other hand, can tackle popularity bias effectively for different users while also improving the existing metrics.

About the speaker: Himan Abdollahpouri is a Postdoctoral Fellow at the Spiegel Research Center at Northwestern University, USA. He received his Ph.D. in Information Science at the University of Colorado Boulder under the supervision of Prof. Robin Burke. He was a pioneer in developing the multi-stakeholder recommendation research paradigm and has worked on the biases that might jeopardize the fairness of the recommendations across different stakeholders. In particular, he has done extensive work on the popularity bias in recommender systems and proposed several algorithms and evaluation metrics in this area. His work has appeared in top conferences such as RecSys, CIKM, UMAP, and journals such as UMAP. He also has worked at Pandora Media and Spotify Research as a machine learning scientist.

<https://uib.zoom.us/j/63657771765?pwd=anZlNKVpdkxoQ0FmZit5WDJ0R3FkQT09>

SEMINAR

🕒 06.05.2021 - 14.15–15.00

📍 Zoom

👤 [Mehdi Elahi](#)

📅 [Legg til i din egen kalender](#)



Foto/ill.: Himan Abdollahpouri



[Web announcement with participation link here.](#)



The first CEDAS conference will take place on 1-2 June 2021!

[CEDAS](#), the Center for Data Science at the University of Bergen, invites you to participate in the first [CEDAS conference](#) on 1-2 June 2021.

The [CEDAS conference](#) will be a hybrid event, with local participants meeting physically at [Scandic Bergen City](#) and national and international speakers joining remotely. The conference will feature keynote presentations by [Prof Chris Holmes](#) and [Prof Mattias Villani](#), and sessions on [Machine Learning & AI](#), [Data Science & Statistics](#), [Data-driven Science by Data Science](#), and [Human-centered Data Science](#). The conference will also feature a [hybrid poster session](#). All presentations will be live-streamed, in partnership with [Kulturoperatørene](#).

Registration for the conference is free and can be done by filling out the [registration form](#). Please note that in case the number of on-site participants needs to be restricted due to the corona situation, priority will be given to those who registered first.

Conference links:

- Conference website: <https://cedasconf.w.uib.no>
- Conference programme: <https://cedasconf.w.uib.no/programme/>
- Poster submission instructions: <https://cedasconf.w.uib.no/2021/04/call-for-posters/>
- Registration form: <https://skjemaker.app.uib.no/view.php?id=10242434>

Important dates:

- **02.05.2021:** [Poster abstract submission](#) deadline.
- **02.05.2021:** [Registration deadline for on-site participation](#)
- **07.05.2021:** Notification of poster acceptance
- **24.05.2021:** Poster submission deadline
- **01.06.2021, 13:00-19:00:** [CEDAS conference](#) day 1
- **02.06.2021, 09:00-14:30:** [CEDAS conference](#) day 2

We are looking forward to meeting you at the [CEDAS conference 2021](#), be it on-site or virtually!

The conference organizing committee, Belén García Pascual, Helwig Hauser, Yushu Li, Adriaan Ludl, Stefanie Meyer, Tom Michoel, Knut Risnes.

Teaching and Student affairs

International Symposium on Learning Analytics in Higher Education, May 26

INTERNATIONAL SYMPOSIUM

SUPPORTING LEARNING IN HIGHER EDUCATION THROUGH LEARNING ANALYTICS

26 May, 2021

More than 10 years have passed since Learning Analytics emerged as a field where student data is used to enhance learning and support learning environments. With the recent pandemic resulting in higher education institutions moving much of their teaching and learning online, large amount of educational data has been produced. Experts presume that with these large amounts of data, Learning Analytics will be more powerful, and will be able to provide precise and data-driven algorithms to support learning. Are these presumptions valid? How can this data best be used to support learning? What are the ethical and privacy issues around the use of this data? Is datafication of education a good idea?

The [Centre for the Science of Learning & Technology](#) (SLATE), University of Bergen invites you to an online international symposium on [Supporting Learning in Higher Education through the use of Learning Analytics](#).

The symposium will cover many topics, including:

- Personalized and automated feedback
- Using Learning Analytics to support Self-Regulated Learning
- The future of data-driven applications in higher education
- Student engagement
- Datafication, is it a good idea?
- Ethical perspectives on Learning Analytics



The symposium assembles global experts in the field to share their knowledge and expertise and engage in discussions about future directions. The floor will be open for debate and questions from the participants.

Erasmus+ trainee and guest students autumn 2021

Do you plan to supervise a trainee or welcoming a guest student next semester? If so, please note that the application deadline for both is 1 May. For more information contact [Ida Rosenlund](#)

Digital labfrokost 29. april: Ny utlysning i Program for studentaktiv læring

Kjære Labfrokost-deltaker, seminarserien fortsetter, med et [egget arrangement om årets utlysning i Dikus Program for studentaktiv læring torsdag 29. april kl. 9 – 10](#). Utlysningen er åpen for alle fagområder og retter seg mot utviklingsprosjekter som omfatter hele studieprogrammer eller større emnegrupper, med vekt på studentaktive lærings- og vurderingsformer. Søknadsfrist er 24. september.

I 2020 fikk seks UiB-prosjekter tildelt fem millioner hver fra programmet. To av prosjektlederene stiller på Labfrokost for å dele sine erfaringer fra fjorårets søknadsrunde: Professor [Lars Nyre](#), Institutt for informasjons- og medivitenskap, fikk støtte til videreutvikling av innovasjonspedagogikk for medieutdanninger. Seniorforsker [Kristin Børte](#), SLATE (Centre for the Science of Learning & Technology), leder et prosjekt for bedre praksisopplæring og en bedre integrert lektorutdanning ved UiB.

Fra Dikus Seksjon for utdanning og arbeidsliv deltar seniorrådgiver Kjersti Skjervheim, som presenterer [årets utlysning](#) og belyser fjorårets sønader fra UiB med utgangspunkt i kriteriene som ligger til grunn for de sakkyndiges vurdering.

Velkommen!

På vegne av UiB læringslab,
Kari BJ

PhD updates

R-course for bio-scientists, May 3-7

The R crash course is an introductory course and no previous knowledge about programming is necessary for participation. It extends over five days, 3rd-7th May, from 9-16.

You will learn how to get started with R, how to make small useful programs, how to analyze your data in reproducible ways, how to visualize your dataset with beautiful plots and how to take advantage of thousands of R packages. The course is biology-oriented, and will introduce you to the wonders of Bioconductor. We will also expect you to complete a few homework assignments to practice and hone your skills. The R crash course is adapted from Software Carpentry workshops, and we expect a high level of interaction and hands-on exercises. [More information here](#)



Genome assembly and annotation workshop, May 3-7

The workshop is aimed at researchers interested in learning more about genome assembly and annotation. It will include information useful for both the beginner and the more advanced user. We will start by introducing general concepts and then continue to step-by-step describe all major components of a genome assembly and annotation workflow, from raw data all the way to a final assembled and annotated genome.

There will be a mix of lectures and hands-on practical exercises using command line Linux.

[More information here](#)

Vacant positions

Postdoc in Concrete Cryptology at Simula UiB

Please find [the announcement here](#). Closing date: 30.04.2021

PhD position in Informatics – open for all our research fields

Please find [the announcement here](#). Closing date: 30.04.2021

Instituttleiar ved Institutt for informatikk - åremålsstilling

Please find [the announcement here](#). Closing date: 10.05.2021

PhD Research Fellow in Informatics - Machine Learning

Please find [the announcement here](#). Closing date: 23.05.2021

Publishing Open Access

Open Access Policy

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](#).



**Publication fund for
Open Access at UiB**



**Open access
publishing deals**



**Open Access - what,
why and how**

Plan S requirements



For calls for proposals from and including 2021, the Research Council of Norway (RCN) will require full and immediate open access to all articles from projects that receive funding from the Council.

According to the Plan S requirements, there are **three main ways to OA**: publishing in OA journals, publishing in venues under a transformative arrangement, or making a version (either the AAM or final version) of the article available by depositing it in an open archive. For any chosen route to compliance, the publication must be **openly available immediately** with a Creative Commons Attribution license (**CC BY**). Coalition S has recently launched a journal checker tool, where you can check whether your

chosen journal/venue is Plan S compliant and which routes are available.

Currently, the requirements apply only to scientific articles. During 2021, cOAlition S will develop joint open access requirements for scientific books and book chapters (monographs and anthologies). When this has been done, the RCN will introduce requirements for scientific books in line with the recommendations made by cOAlition S.

Please also note that the RCN requires all articles to be archived in a suitable open archive (no matter which OA route was used). We recommend to use CRIStin for this purpose.

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.

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:



IKTPLUSS. 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.**



Enabling technologies. The Research Council of Norway has issued preliminary calls for both researcher and collaborative projects in the area of technological/digital convergence (*teknologikonvergens*). More information will be available soon. **Application deadline: 15 September 2021.**

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.*



ERC. The European Research Council has updated their website with the call deadlines for 2021 as well as tentative deadlines for the 2022 calls:

- Advanced Grant '21, **31 August 2021**
- 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 training: How to write competitive proposals for the ERC Advanced Grants, online [course](#) between 29 April and 28 May 2021. Registration deadline is 28 April 2021.



Student active learning. Diku, the Norwegian Agency for International Cooperation and Quality Enhancement in Higher Education, has an open call for applications in the area of student active learning. The focus is on projects that develop, implement, evaluate and use student active teaching and assessment. Applications from all research disciplines are welcome. Applicants need to make sure that the activities target whole study programs or larger groups of subjects. **Application deadline: 24 September 2021.**

[Virtual UiB seminar about the call:](#) **29 April 2021.**

NB: All applications should be developed in close collaboration with the department's study section and research coordinator!