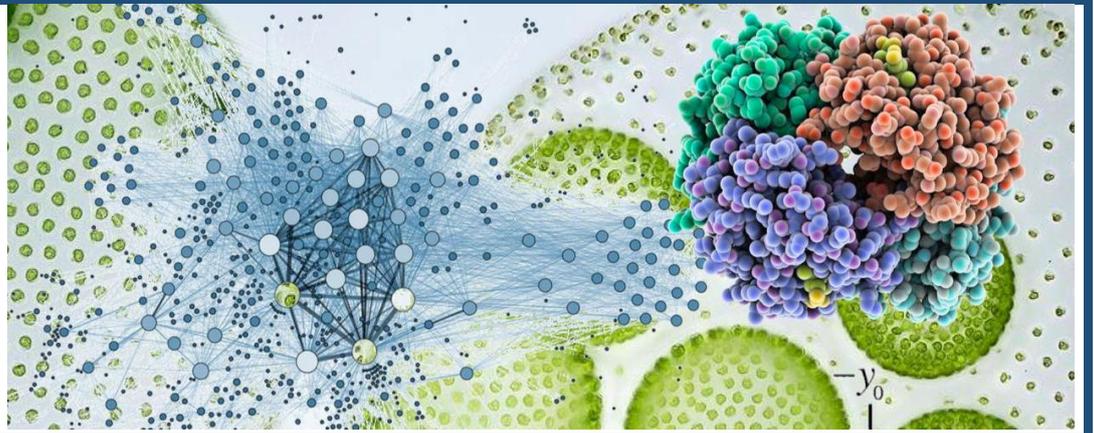


NEWSLETTER

Department of
Informatics



No. 11/2019
7th June 2019



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

Dear colleagues,

Among all the duties of a department head, two stand out as extremely pleasant: welcoming new students and celebrating graduating students. Yesterday we celebrated all master students who are graduating this year from the faculty of mathematics and natural sciences, with a very nice ceremony in the university aula. I was happy to see that many of our own department's master students participated in the ceremony, and the graduate students' speech was made by one of our own students, Ragnhild Aalvik. While I was congratulating our students one by one on the stage, it was hard to keep to the etiquette of the session. I know all of them so well! I wanted to hug each of them rather than just shaking their hand. As I was standing there together with them, it was also pretty hard to imagine our department without them... they have been with us for five years! So, although it was a very happy event, the thought that most of these cheerful bright young people are leaving us is pretty sad. I wish them the best of luck in their further careers!



Yesterday there was also the bachelor graduation ceremony, for the first time. Although nowadays it is really easy for our bachelor graduates to find relevant and interesting jobs, I encourage them all to continue with a master's degree. Hopefully we will continue to see many of our bachelor graduates in our corridors for the next two years, or perhaps they will choose a slight turn of focus and go for a master's degree in a related field.

Yesterday, another happy event was the visit by the minister of digitalization, Nikolai Astrup, to Bergen. I had the honor of presenting ICT research and education at our university. Several companies and corporations were represented at the event, and it was a pleasure to notice how highly they thought of our graduates. Our university strategy focuses strongly on research based education. All our master graduates get very good research training, which gives them excellent problem solution skills and the ability to dive into new fields. In addition, they are excellent programmers and software developers. I think it is exactly this combination that makes them highly attractive for companies in a wide range of areas. You might have noticed [an article in Bergensavisen on Wednesday](#) about how attractive our graduates are for companies and corporations. Whereas earlier I was contacting the media to get this message out, now they are contacting us to get interviews with our students. I believe we are building a strong brand, and I am optimistic that in the future we will be able to attract even more students to apply to our study programs.

I would like to thank you all for your excellent work in educating our students, and in particular in supervising our master students. Well done and keep up the good work! ☺

I wish you all a very 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: [For meg er utdanningsarbeidet ved fakultetet noko av det viktigaste vi held på med](#) - [Nyttig matematikk](#) - [Er karakterer et hinder for læring?](#) - [Akademisk frihet, etikk, prioriteringer og oljepenger](#)



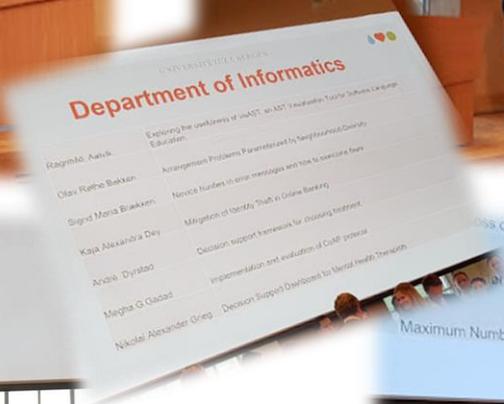
Welcome new colleagues!

	<p>Nello Blaser</p> <p>This week Nello started in his new Tenure Track Associate Professor position in Machine Learning. This is a 6 year fixed term, with a possible promotion to full professor at the end of this period.</p> <p>Nello is from Switzerland. He holds a PhD in Biomedical Sciences from the Institute of Social and Preventive Medicine, University of Bern, Switzerland, where he also had a postdoctoral fellowship before he came to Norway. His latest position before he came to us was as postdoctoral fellow at the Department of Mathematics at the UiB.</p>
	<p>Chung-Wei Weng</p> <p>Chung-Wei started this week in his new position as research fellow in information theory. His work place will be with Simula UiB, and he will be supervised by Eirik Rosnes. He will use advanced information-theoretic and coding-theoretic tools to design new security and privacy schemes and derive fundamental performance bounds for such schemes applied to future distributed information systems. Distributed information systems include, but are not limited to distributing storage systems and distributed computing systems.</p> <p>Chung-Wei comes from Taiwan. He did his Master's in Data Science in 2018 at the National Taiwan University, where his research was focused on the channel-aware scheduling of 5G millimeter wave wireless networks.</p>
	<p>Ramin Hasibi</p> <p>Ramin started this week in his new position as research fellow in bioinformatics. His main supervisor will be Tom Michoel.</p> <p>Ramin comes from Iran. He did his Master's in Computer science University of Passau in 2018.</p>

Congratulations colleagues!

	<p>Sergej Stoppel wins the EuroVis Best PhD Award!</p> <p>The EuroVis Best PhD Award will be awarded at EuroVis 2019 in Porto in week 23 – the Vis-group will be there. Congratulations Sergej!</p> <p>Moreover, Çağatay Turkey, who finished his PhD with us/Helwig in 2013 and who is Lecturer at City University in London since 2013, will receive the EuroVis Young Researcher Award.</p>
	<p>Noeska Smit wins the Dirk Bartz Prize 2019!</p> <p>Noeska Smit won the Dirk Bartz Prize 2019 (second place):</p> <p>“Model-based Visualization for Medical Education and Training” Noeska Smit, Kai Lawonn, Annelot Kraima, Marco DeRuiter, Stefan Bruckner, Elmar Eisemann, and Anna Vilanova</p> <p>More info here.</p>

Master's Ceremony 2019



Ragnhild speaks on behalf of all the students

Kristian receiving his Diploma

Bachelor's Ceremony 2019



Trial lectures in connection with recruitment for Associate Professor (ICT didactics)

Department of Informatics



Introduction to objects



Trial lecture in connection with recruitment for Associate professor in informatics, scientific communication and education (ICT didactics) Martin Vatshelle 17.06.19 at 11.15 in room 510N3 5th floor Datablokken

Refreshments will be served.

Abstract:

Objects which are defined by classes are the building block used in object-oriented programming. Objects gather data and methods so that code is easier to understand and maintain. It is important to have a solid understanding of how to define and instantiate objects in order to master object-oriented programming.

Two of the most popular object-oriented programming languages are Java and Python. We will go through examples and highlight the similarities and differences between Java and Python.

Department of Informatics



Introduction to objects with examples in Python and Java



Trial lecture in connection with recruitment for Associate professor in informatics, scientific communication and education (ICT didactics) Crystal Chang Din 11.06.19 at 11.15 in room 510N3 5th floor.

Refreshments will be served.

Abstract:

In this lecture, we learn about the concept of object-oriented programming using Java and Python.

A live demo of programming will be presented.

Pride-parade with UiB June 8



Saturday June 8 is the annual Pride-parade in Bergen. Come along to celebrate that diversity enrich research and education.

“The University of Bergen (UiB) is actively engaged in promoting equality and diversity. No-one shall experience discrimination on the basis of gender, ethnicity, national origin, language, religion and beliefs, functional abilities, sexual orientation, gender identity or age.” (Diversity and Inclusion Action Plan)

Welcome to the Pride Parade! We walk under the banner “Diversity that shapes society”.

Meet at: Skur 7 by Festningskaaien / Bradbenken at 12 AM. Participants will receive a t-shirt and a rainbow flag. The Parade leaves at 13 PM and finishes in Pride park at Festplassen.

Check out the whole route: <http://bergenpride.no/> Interested? Let us know in our [Facebook Event](#)

Next Faculty & Staff lunch is on Tuesday 18th June

We will meet in the lunch room on the fourth floor at 12:00 as usual.

Student affairs [bioCEED news](#)

Our new Master's 2019

Name	Title of thesis	Supervisor
Ragnhild Aalvik	Exploring the usefulness of visAST, an AST Visualisation Tool for Software Language Education	Jaakko Järvi
Fredrik Absalonsen	Event-driven architecture in Sbanken	Pål Ellingsen
Sigrid-Maria Brækken	Novice hurdles in error messages and how to overcome them	Anya Bagge
Jone Helleland Dagsland	The Effect of the Hollow Face Illusion on Advertisement Posters	Harald Soleim
Sindre Eik de Lange	Autonomous mobile robots - Giving a robot the ability to interpret humanmovement patterns, and output a relevantresponse.	Alexander Selvikvåg Lundervold
Kaja Alexandra Dey	Mitigation of Identity Theft in Online Banking	Håvard Raddum
André Dyrstad	Decision support framework for choosing treatment	Adrian Rutle
Ben-Richard Sletten Ebbesvik	Gamification To Promote Guideline Training In Health Care	Svein-Ivar Lillehaug
Igor Efrem	Developing a mobile application supporting parents' activities during pregnancy	Ilona Heldal
Gard Engen	Digitalt system for verifisering av en persons tilstedeværelse	Adrian Rutle
Magnus Paulson Erga	Firefly: Virtual Illumination Drones For Interactive Visualization	Stefan Bruckner
Tomas Fjugstad Eriksen	A Modular Approach for Creating Web Applications with 3D Geology Using React and X3DOM	Daniel Patel
Adrian Foster	Exploring emerging visualization technologies for accelerating pre-surgical planning for brain tumors	Adrian Rutle
Sebastian Frøyen	A framework for integrating data, models and visualisation tools to understand fish migration pattern	Atle Geitung
Nikolai Alexander Grieg	A Visual Analytics Dashboard for Mental Health Therapists	Yngve Lamo
Silje Grimstad	Simulation and analysis of clustering for proton CT	Kristin Fanebust Hetland
Øyvind Stette Haarberg	Complexity of Edge-Editing to a Connected Graph of Bounded Degrees	Petr Golovach

Svetlana Halmes	Digitalt Grenseforsvar	Øyvind Ytrehus
Åsmund Hammer	Belief Propagation in Self-Dual F4-Additive Codes Utilizing Local Complementaion	Pål Ellingsen
Lars Henrik Haug	Indoor/Outdoor Relationship Analysis Using IoT	Rogardt Heldal
Stian Heilund	Autonomous mobile robots - Giving a robot the ability to interpret human movement patterns, and output a relevant response.	Alexander Selvikvåg Lundervold
Svein Høgemo	On the Linear MIM-width of Trees	Jan Arne Telle
Sathiesh Kumar Kaliyugarasan	Deep transfer learning in medical imaging	Alexander Selvikvåg Lundervold
Eivind Ersland Kolbeinshavn	Functional Magnetic Resonance Imaging: Exploring data driven analysis of brain activations in rest and effort mode using deep learning.	Jon Eivind Vatne
Ketil Mikalsen Kvifte	Coded communication on the Internet	Øyvind Ytrehus
Gunvor Lemvik	Optimizing marine insurance brokerage	Dag Haugland
Daniel Steen Losvik	A Domain-Specific Language for the Development of Heterogeneous Multi-Robot Systems	Adrian Rutle
Zohar Malamant	Viability of k-Means Polynomial-Time Approximation Schemes and Heuristics for Binary Matrix- and Low Rank Binary Matrix Approximation Problems	Daniel, Fedor
Kjell-Erik Havåg Marstein	Improve auditing and privacy of electronic health records by using blockchain technology	Chunlei
Fengming Miao	Discriminating between surfaces of peripheral membrane proteins and reference proteins using machine learning algorithms	Nathalie Reuter
Torkel Kårstad Nes	A framework for integrating data, models and visualisation tools to understand fish migration pattern	Atle Geitung
Cecilie Daae Nilsen	Sustainability in mining protocols for public blockchains	Håvard Raddum
Tarald Riise	An Introduction to Information Theoretic Private Information Retrieval (IT-PIR)	Øyvind Ytrehus
Kristian Rosland	Predicting Loss of Inference Accuracy in Bounded Tree-Width Bayesian Networks	Anya Bagge
Mohnd Arf Skr	Urban Process Modeling with GIS Applications to the City of Bergen.	Lars M. Kristensen
Sindre Stokkenes	Implementation and Evaluation of a Fire Risk Indication Model	Lars Kristensen
Håvard Stuberg	Maximum Number of Edges in Graphs Under Various Constraints	Pinar Heggernes
Erik Tjøswold	uten tittel	Fredrik Manne
Joakim Kårstad Tran	Design of a cross-platform mobile application for sharing self-collected health data securely with health services	Pål Ellingsen
Sebastian Rojas Tveita	Speaker recognition implemented as part of a video-editing system	Atle Geitung
Håkon Andreas Underdal	Data Acquisition and Testing Software for a Proton Computed Tomography System	Håvard Helstrup
Vidar Hartveit Ure	An Automated Method for Converting 3D Meshes into Editable 2D Vector Graphics	Daniel Patel
Julia Lindstrøm	Prototype for a Distributed Geospatial Metadata Catalogue	Marc Bezem

PhD Updates

PhD defense Anna-Lena Both



Anna-Lena Both will defend her thesis *"Parameter optimisation for the improved modelling of industrial-scale gas explosions"* on Monday 17th June 2019, at 10:15, Large Auditorium, Datablokken. All are welcome!

- Opponent: Professor, Dr.rer.nat. Wolfgang Achtziger, Friedrich-Alexander University of Erlangen-Nuremberg, Tyskland
- Opponent: Professor emeritus, Dr. Ing Bjørn Helge Hjertager, Institutt for maskin, bygg og materialteknologi, University of Stavanger
- Committee member: Associate professor, PhD Noeska Smit, Department of Informatics, University of Bergen

Custos/Leader of the defense: Associate professor Pekka Parviainen

[Please find the press release here.](#)

Research Science and Seminars

Lecture by Jeremy Cook: Interactive Visual Analysis in practice

Visual Computing Forum

<http://vis.UiB.no/vcf/>



Interactive Visual Analysis in practice



Friday, 14th of June, from 10:15
Høyteknologisenteret, Lille auditorium
(Thormøhlens gate 55)

Jeremy Cook
Senior researcher @ NORCE

Abstract:

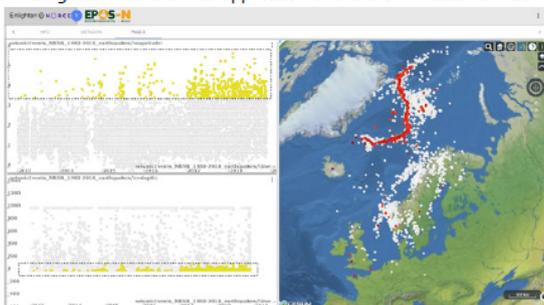
Enlighten-Web is a multi-dimensional interactive visualisation and analysis tool and has been developed as part of our on-going data analysis and visualization efforts at NORCE. Enlighten was originally developed as a desktop application during the PhD of Ove Daae Lampe under the leadership of Helwig Hauser as part of his PhD "Interactive Visual Analysis of Process Data". We have since developed this further in to a web based tool for interactive visual analysis – Enlighten-Web – and is used in our ongoing project work as part of our visualization analysis activities.

Enlighten-Web is a web application and is the

result of extensive development work based on the original research results from enlighten. The application gathers data from various services specified by the user and are explored through a web browser.

The powerful brushing and linking feature combined with multiple synchronized plots gives the user the ability to analyse data visually in multiple dimensions. Data acquisition is flexible and can be from many sources. Applications are wide ranging with analyses developed for solid earth science, marine biology and analysis of meteorological data from LIDAR.

In this talk we will describe the motivation for developing the web application, describe some of the implementation features and functionality, and finally illustrate our solution using practical examples from web portals developed for solid earth sciences, and for marine biology.

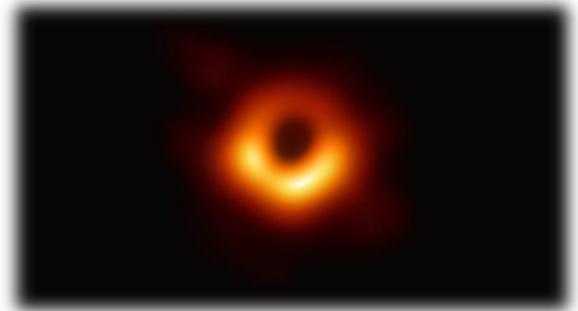


Event Horizon Telescope and the portrait of a black hole, 07.06.2019

[Tuomas Savolainen](#) will present the Event Horizon Telescope (EHT) project, describe how the now famous image of M87 was made, and discuss future prospects for studying black holes at event horizon scale resolution.

The Event Horizon Telescope is a global, very long baseline interferometry array operating at 1.3 mm wavelength. The combination of a short observing wavelength and long intercontinental baselines between the participating telescopes allows the EHT to make images at exquisite resolution of 20 microarcseconds – enough to resolve event horizon scale

structures around the supermassive black holes in the centre of our galaxy, and in the centre of the radio galaxy M87.



07.06.2019 at 14.00–15.30. Auditorium B, Allégaten 66. The lecture starts at 14.15. Refreshments will be served from 14.00. [Read more on UiB.no](#) [Facebook-event](#)

Lecture by Chunlei Li on June 12: Blockchain

Selskapet til Vitenskapenes Fremme

Dear friends,

Wednesday June 12, the Association for the Promotion of Science will host its last event for the semester. The topic is blockchain, the technology best known for the cryptocurrency bitcoin. It also has many other applications. What is blockchain, and how has the technology developed the last decade? What are the impacts of the technology?

In essence, the blockchain technology is a distributed and append-only ledger system in which the data stored is immutable, traceable, decentralized and transparent to all participants. Since Bitcoin was introduced in 2009, the technology has proved useful also beyond cryptocurrency. Thanks to a combination of techniques from modern cryptography, game theory, and distributed computing, the technology realizes distributed trust in a trustless environment. It has therefore been deemed a revolutionary technology, like the Internet, and is expected to be a game changer in many areas.

Although the technology started with cryptocurrency, its potential benefits go beyond economics. Possible applications are found in the political, humanitarian, social, and scientific domains. The technology is already being harnessed to address real-world problems in e-healthcare record keeping, intellectual copyright, food supply chains, diamond exchange, etc.

The technology also has limitations. Some scenarios see little benefit of utilizing this emerging technology, in other cases the security and privacy aspects require further investigation. What impacts the technology will have in other fields are generally not well understood.

The lecture will be given by **Chunlei Li**, associate professor at the [Selmer Center](#), Department of Informatics, University of Bergen. Chunlei completed his PhD in 2014 on information security, and has done research on information security, including cryptography, coding theory, and blockchain. He is especially interested in the design and analysis of distributed consensus, security enhancement and application of the blockchain technology.

*The lecture will take place **Wednesday June 12, at Café Christie, starting at 17:00, and will be given in English.** The event is open to all, free of charge.*

What could be a better end to the semester than learning something completely new?

Best regards,
Magnus Vollset
Secretary General, [Selskapet til Vitenskapenes Fremme](#)

Workshop on causal inference in complex marine ecosystems at IMR on 11-12 June

Date: 11-12 June 2019

Venue: Institute of Marine Research, Bergen. Tuesday: Nordishavet. Wednesday: Pynten

Funding opportunities [Research support services](#)

Vacant positions

Senior engineer/ chief engineer (System Developer) at the CBU

Closing date: 15th July 2019. [Please find the announcement here.](#)

HR, Health, Safety and Welfare [sikresiden.no](#) – [UiB employees welfare benefits](#) - [Credit card UiB](#) - [Fire extinguishing courses](#)

Have you registered your summer holiday yet?

The summer holiday is soon upon us. You should register your holiday in PAGA immediately. It is a requirement that everyone registers their holiday, and this should be done prior to you taking the days off.

Not sure when you'll be going on holiday? Register it anyway (you can change it later), and avoid running the risk of someone else deciding when you're going on holiday. You will also be relieved from the stress of being followed up through emails and visits from the administration.

[Further information on how to register vacation can be found here](#) If you have any questions regarding vacation or the registration of vacation in PAGAWEB, please contact the local HR professional at your department, Lene Engelsjerd.

Department Boat Trip and Summer Party – save the date 22nd August!



On the 22nd of August, in the afternoon, we are planning a summer party combined boat trip for all our employees together with all our new bachelor and master students of the fall semester of 2019!

Two boats will come and pick us up from Marineholmen, close to the department building. Food and refreshments will be served. There will be games and entertainment.

New application period for the cottages at Ustaoset and Tingviken- Autumn 2019



It is now opened to apply for U-heimen, Ottesheimen and Butten at Ustaoset and Tingviken at Utne for the autumn period from 18 August until 13 October.

Please use the [UoB electronic cabin system](#) by logging in with your username and password.

The application deadline is 14 June. Drawing will be done 17 June.

Welfare offer from the UiB: Theatre «Begynnelsen»

BEGYNNELSE Med Karoline Krüger og Eirik del Barco Soleglad

Ikke gå glipp av denne perlen av et teaterstykke!

Spiller kun frem til 22.juni!

SPESIALTILBUD TIL UIB-ANSATTE!

UIB BILLETTER KR KUN 195,- (ORD PRIS 390,-)

Kjøp billetter til spesialpris ved å klikke på disse lenkene:

[ONSDAG 12.JUNI](#) [TORSDAG 13.JUNI](#)

Du kan også bestille på telefon 55 60 70 80.
Husk å henvise til UIB-tilbudet.



Gratis filmvisning: The Third Part of the Third Measure

Gratis filmvisning onsdag 12. juni, 20:00, på Landmark, Bergen Kunsthall:

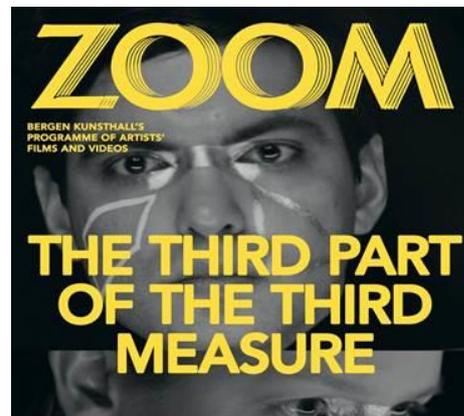
Zoom: The Third Part of the Third Measure

- en film av The Otolith Group

Onsdag 12. juni, 20:00. Gratis!

Velkommen til visning av en film av The Otolith Group "The Third Part of the Third Measure" (UK, 2017, 43 min). Filmen er et møte med den militante minimalismen til den afro-amerikanske avantgarde-komponisten, pianisten og vokalistene Julius Eastman.

Zoom er Bergen Kunsthalls nye serie der vi presenterer filmvisninger og live-arrangementer med kunstnere hvis arbeid beveger seg i sjiktet mellom samtidskunst og film. Denne sesongen presenterer vi filmer som alle har fokus på sosial aktivisme og kollektiv praksis, og som undersøker krysningspunktet mellom dokumentar og fiksjon, det å se og det å lytte, tilbaketrekning og eksponering.



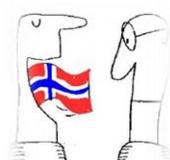
Reminder: Yoga on Wednesdays

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 Meeting room in 5th floor.

Our professional yoga instructor, Kjersti Næss, is teaching in English. No signing up, and no participation fee. Please bring your own yoga mat. We also have some mats for loan.



Reminder: Kakeklubben on Mondays



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 Mondays at 12 o'clock in the lunchroom, 4th floor.

You bring your own lunch, and we share a cake or fresh baked waffles. All are welcome!
We hope to see you there, both internationals and Norwegians!