

IFT-POSTEN

NYTT FRA INSTITUTT FOR FYSIKK
OG TEKNOLOGI
UNIVERSITETET I BERGEN



WEEK 33, 2014

THE HEAD OF DEPARTMENT WISHES YOU A GREAT SEMESTER!



This week has been marked by the semester start, and the corridors of the department have been filled up by lively activities. The lectures start in full next week, and both master thesis presentations and PhD disputations are already taking place as scheduled. I hope you are all ready for a new start, and that with the help of the recent low pressure have managed to shake off the last traces of summer laziness.

In the last issue of The UiB Magazine there was a nice four page report about the Birkeland Center for Space Science. The link to this article can be found at page three of this week's IFT-posten.

Hope you'll get a nice week and a great start of the new semester!

Øyvind

PHOTO COMPETITION

If you think that the photo on the cover page of the department's Facebook group is too boring, or perhaps you have a better example of the photo of the week than what we published in this issue? Have you just returned from a field trip where you experienced something very exciting, or have you done something really cool in the lab recently? And, furthermore; have you managed to capture those moments on video or photo?

Then you might want to share this with your colleagues, and IFT-posten would like to encourage you to send it to our informal, but highly prestigious photo competition. The prize is getting it published in the next week's IFT-posten, and perhaps even on our facebook page.

Photos, or recommendations for the PhD student or PostDoc of the week can be sent to ift-posten@ift.uib.no



INVITATION TO THE INFORMATION MEETING ON ORGANIZATION DEVELOPMENT PROJECT AT UiB

The aim of the organization development project at UiB is the development of the central administrative services in such a way that they best support university's role within research, education and mediation.

All employees are invited to this information meeting on organization development project. The meeting will take place in the Egget hall at the Student Centre, on Wednesday, August 27th, at 12.00 – 14.00.

At this meeting, Rector Dag Rune Olsen and Vice Rector Anne Lise Fimreite will give a presentation of this project. The project leader, Kari Fuglseth, will inform you on the progress of this work and which prioritized project parts will be conducted. A more detailed programme will be sent out right before the meeting.

We will also offer a simple lunch at the entrance to the hall. Therefore would like the employees who wish to participate to register their participation by August 20th.

Use the following link: <https://skjemaker.app.uib.no/view.php?id=646290>

We would like to remind you that the information on the organization development project is also available on the project's web page: www.uib.no/ouprosjekt

Welcome!

Best regards

Kari Fuglseth, project leader

BTO & Sparebanken Vest's Idea Competition 2014

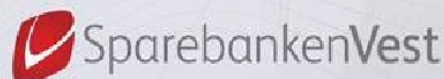
Do you have an exciting research project or idea with innovative potential?

We encourage you to participate in the idea competition!

The winner receives **300 000 NOK** to the development of the project.

Read more and fill out a short idea description form at bergento.no/idea

Deadline: **13. October 2014**



(Left-click on the advertisement for more information)

ANNOUNCEMENT- UTFORSK PARTNERSHIP PROGRAMME 2014: The prize for our most alert reader of the last week's issue goes to [Anna Lipniacka](#), who immediately pointed out that the attachment to Utforsk Partnership programme was incorrect. [Here](#) is the correct attachment, and IFT-posten apologizes for the inconvenience this may have caused other readers.

IFT IN THE MEDIA: In the last issue of *The UiB Magazine*, The Birkeland Center for Space Science (BCSS) got a four page article on its activities. [Here is the article](#), and [here is the complete issue of the magazine](#).

PHD - TRIAL LECTURE

MSc Khaled Jemai will hold the following PhD trial lecture:

Chaos and order in dynamic systems

Wednesday, August 20th, at 13.15 in room 546, IFT

MASTER THESIS PRESENTATION

Agnethe Seim Olsen will hold a master thesis presentation in particle physics by the following title:

Reaching towards higher masses of supersymmetric particles decaying to tau leptons

Tuesday, August 19th, at 12.15 in room 546, IFT. Her supervisor was Anna Lipniacka.



Stavanger city during ONS

With current methods for extracting oil, almost half of the oil remains under the sea. A lot of research has been conducted in order to increase the extraction efficiency, but has this research been applied? Norwegian Research Council arranges a lunch seminar on Wednesday:

INCREASED OIL RECOVERY EFFICIENCY – FROM RESEARCH TO PRACTICE

Lecturers from Schlumberger, Statoil, Oljedirektoratet, National IOR-centre and many others.

Time: Wednesday, August 27th, 10 am to 15 pm.

Place: Stavanger Forum

Meeting room S1, third floor, Hall O.

[Register your participation here / The whole programme](#)

Participation fee (including lunch and the ticket to Wednesday's fair):

Ordinary participation fee : 1300 nok.

PhDs and students: 400 nok.

MASTER THESIS PRESENTATION

Inge Nikolai Torsvik will hold a master thesis presentation in micro electronics by the following title:

Radiation Testing of RCU2 Components.

Friday, August 22nd, at 10.30 in room 292, IFT. His supervisor was Kjetil Ullaland.

MASTER THESIS PRESENTATION

Christian Torgersen will hold a master thesis presentation in micro electronics by the following title:

Performance Analysis of the Clock and Data Recovery for Readout Control Unit 2 for the Time Projection Chamber in ALICE.

Friday, August 22nd, at 13.15 in room 292, IFT. His supervisor was Kjetil Ullaland.

PHOTO OF THE WEEK



Photo of gas explosion in a 2-litre pyrex-container. Demonstration/exercise in the PTEK250 course: "Explosion Hazards in the Process Industries".

Sent by Rolf K. Eckhoff (prof.em.)

START OF THE NEW SEMESTER AT UiB: This week was the start of the new semester at UiB, and traditionally there was the fadderuke (welcoming of the first year students) over the entire area of Nygårdshøyden. This year at IFT we have 130 new students, and William Sigurdsson, fadder leader for students of physics, tells us that the majority have participated in the activities arranged by the fadderuken leaders. On Monday they planned grilling in the park, but due to bad weather, the event was cancelled and students moved to H-bar. On Tuesday there was the official opening at Nygårdsparken arranged for all new university students, with Rector Dag Rune Olsen. Despite bad weather, there was a great number of fresh students present there, and amongst others, both Hans-Wilhelm Steinfeldt and Razika were at the stage. The Blue Tour in the evening went to an unknown place at an island outside Bergen, with ponchos and grilling. On Wednesday there was an arranged pub round, with dress code, and on Thursday there were concerts and various events at Kvarteret. Friday was a sports day at the Student Centre, with dodgeball and football, and cinema in the evening at auditorium 1 at the Natural Sciences building.

Almost every day have several of the new students ended the day or dropped by H-bar at some point of the evening. Bar manager Kristin Brekke, herself a third year Bachelor student of physics, says that H-bar is a bar run by students for students. The bar itself is situated in the basement of the Physics building, and is a meeting point for students of IFT, but IFT employees or students from other departments are also welcome: "We try to combine the social with the academic content, and sometimes we arrange pub lectures with various lecturers from the faculty. H-bar has also had many various theme parties such as Halloween, hippie, nylon party and others. A year ago, we also started with our own micro brewery. If you would like to work at H-bar, just contact the bar or just contact me. We expect from you that you work at least once during the semester."



Happy students in the H-bar during the semester start last year.

H-BAR



H-bar opens next week, and will be open every Friday from 19.00 - 01.00.

On Tuesdays, every even-numbered week, there are organized pub-lectures at H-bar.

More info at H-bar's [facebook page](#).

H-bar is run by IFT's Fagutvalget, and is primarily aimed at department's students – but employees are also welcome!



PHD STUDENT OF THE WEEK:

Paul Tenfjord, PhD student at the Birkeland Center for Space Science (BCSS). Supervisor: Nikolai Østgaard (main) and Karl Magnus Laudal (co-supervisor).

When Paul was born, it wasn't written in the stars that he would one day become a space physicist. Nonetheless, he was a New Year's baby born in Ålesund, and he got his first telescope when he was eight, but with a mother who worked as a teacher and a father working for Statnett, he might as well have become a tinsmith. After completing high school, he actually worked as one for a year, in addition to a couple of years working in an It-company, but Paul then finally decided to take up studies. The transition from the tinsmith's profession with working hours from seven to three, to a life of a mathematics student in Bergen was quite hard, but his strong will and a sharp mind helped him get over these changes of environment and culture. His Bachelor studies in physics and mathematics soon turned into a Master in space physics.

Paul grew up in Sykkylven, a small place of about 8000 inhabitants, just east of Ålesund. According to him, it's the nicest place on the western coast of Norway, and he hopes he will move back to his hometown one day. With a partner who is currently working at Høgskulen in Volda, this is perhaps not an entirely unrealistic goal. Fishing and hunting, cycling and hiking are his favourite activities, in addition to playing poker (he is very good, according to himself) and beer brewing (even better, he won the eighth place at a beer brewing competition this summer). Consuming the same fluid is of course a part of the process. In his everyday life, he is trying to find time for playing football now and then at Møhlenpris, and he recently started playing squash at SiB training centre (Paul would like to use this opportunity to invite other IFT employees or students to a match: «I am a good winner and a good loser. Not the 'lose or win makes no difference' type of person who clearly does not care whether he wins or loses»). In the evenings Paul reads and watches a lot of SciFi, and he is a big fan of Doctor Who.

Tenfjord completed his Masters degree in 2012, and then worked for a short period as research assistant for professor Østgaard. In May 2013 he got a PhD position at BCSS. The main focus at the Birkeland Center for Space Science is: «How is Earth coupled to space?» With this in mind, the centre has identified four fundamental areas of research, where Paul and his research group focus on the first (Q1). They are trying to understand why northern light and southern light are not always mirrored images of one another and what is the reason for this asymmetry. This has "recently" been discovered with the help of satellite imaging of the northern and southern hemispheres taken simultaneously. Q1 has several theories on possible mechanisms which could be responsible for this asymmetry. For the time being, Paul is researching one of the suggested mechanisms, in order to either confirm or discard it as a possible explanation. For this purpose, he is using the satellite-data and interpreting models of how this stream of particles can be differently distributed between the two hemispheres.

Paul Tenfjord intends to complete his PhD by May 2017.



Werner Heisenberg was driving down the highway when a policeman pulled him over to the side of the road: «Do you have any idea how fast you were driving?» asked the officer. «No,» replied Heisenberg, «but I know where I was.»



PUBLICATONS:

- Haugen, Asmund; Mani, Nima; Svenningsen, Sondre; Brattekas, Bergit; Graue, Arne; Ersland, Geir; Ferno, Martin A.: *Miscible and Immiscible Foam Injection for Mobility Control and EOR in Fractured Oil-Wet Carbonate Rocks* TRANSPORT IN POROUS MEDIA Volume: 104 Issue: 1 Pages: 109-131
- Buanes, T.; Burgess, T; Eigen, G.; Kastanas, A; Liebig, W.; Lipniacka, A.; Rosendahl, P.L.; Sandaker, H.; Sjurson, T.; Stugu, B.; Tonoyan, A.; Ugland, M.; et al.: *The differential production cross section of the $\phi(1020)$ meson in root $s=7$ TeV pp collisions measured with the ATLAS detector* EUROPEAN PHYSICAL JOURNAL C Volume: 74 Issue: 7
- Kristoffersen, Arne S.; Hamre, Børge; Frette, Øyvind; et al.: *Testing Fluorescence Lifetime Standards using Two-Photon Excitation and Time-Domain Instrumentation: Rhodamine B, Coumarin 6 and Lucifer Yellow* JOURNAL OF FLUORESCENCE Volume: 24 Issue: 4 Pages: 1015-1024
- Lees, J. P.; Poireau, V.; Eigen, G.; Stugu, B.; et al.: *Study of the reaction $e^{+}e^{-} \rightarrow \psi(2S)\pi^{+}\pi^{-}$ via initial-state radiation at BABAR* PHYSICAL REVIEW D Volume: 89 Issue: 11
- Labaigt, G.; Dubois, A.; Hansen, J. P.: *Electron capture imaging of two-dimensional materials* PHYSICAL REVIEW B Volume: 89 Issue: 24
- Lees, J. P.; Poireau, V.; Eigen, G.; Stugu, B.; et al.: *Antideuteron production in Upsilon(nS) decays and in $e^{+}e^{-} \rightarrow q\bar{q}$ over bar at root s approximate to 10.58 GeV* PHYSICAL REVIEW D Volume: 89
- Buanes, T.; Dale, O.; Eigen, G.; Kastanas, A.; Liebig, W.; Lipniacka, A.; Rosendahl, P. L.; Sandaker, H.; Sjurson, T. B.; Stugu, B.; Ugland, M.; et al.: *Search for direct top-squark pair production in final states with two leptons in pp collisions at root $s=8$ TeV with the ATLAS detector* JOURNAL OF HIGH ENERGY PHYSICS Issue: 6
- Lees, J. P.; Poireau, V.; Eigen, G.; Stugu, B.; et al.: *Dalitz plot analysis of $\eta(c) \rightarrow K+K-\eta$ and $\eta(c) \rightarrow K+K-\pi(0)$ in two-photon interactions* PHYSICAL REVIEW D Volume: 89 Issue: 11
- Fan, L.; Li, W.; Dahlback, A.; Stamnes, J.J.; et al.: *Comparisons of three NILU-UV instruments deployed at the same site in the New York area* APPLIED OPTICS Volume: 53 Issue: 17 Pages: 3598-3606
- Buanes, T.; Dale, O.; Eigen, G.; Kastanas, A.; Liebig, W.; Lipniacka, A.; Latour, B. Martin dit; Rosendahl, P. L.; Sandaker, H.; Sjurson, T. B.; Smestad, L.; Stugu, B.; Ugland, M.; et al.: *Search for supersymmetry at root $s=8$ TeV in final states with jets and two same-sign leptons or three leptons with the ATLAS detector* JOURNAL OF HIGH ENERGY PHYSICS Issue: 6
- Lees, J. P.; Poireau, V.; Eigen, G.; Stugu, B.; et al.: *Measurement of the $B \rightarrow X(s)l^{+}l^{-}$ Branching Fraction and Search for Direct CP Violation from a Sum of Exclusive Final States* PHYSICAL REVIEW LETTERS Volume: 112 Issue: 21



USEFUL LINKS

[The IFT Webpages](#)

[Employees at the administration](#)

[Webpages of the Faculty](#)

[Employee Pages at the UoB](#)

[The Board of Faculty](#)

[The Faculty- Strategy and Vision](#)

[Pubmed](#)

The internet News Bulletin [På Høyden](#) (internalnews for UoB)

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