

IFT-POSTEN

NYTT FRA INSTITUTT FOR FYSIKK
OG TEKNOLOGI
UNIVERSITETET I BERGEN



WEEK 36, 2014

THE HEAD OF DEPARTMENT



The department's lecturing forum started last Thursday. This is a forum which will hopefully contribute to focus on improving the quality of lectures. It will be exciting to see how this forum will develop. Thanks to Bjarne and the rest of the programme committee in physics for their contribution now and in the future.

In May we were visited by a committee which then started its work with evaluating research linked to CERN. The committee's report is completed now, and it is a great joy to congratulate all involved on a highly positive evaluation. A link to the report is available on page 2.

On Monday, there was a Horizon debate on ethics and petroleum research. I hope some of you had the time to attend.

Otherwise, we would like to encourage all of you who still have not published pictures of yourselves at our web page, to please do so. For those of you who don't have any picture you like, please drop by the administration where Anders has promised to participate in taking excellent photos.

Have a great weekend,

Øyvind

INFORMATION FOR COURSE COORDINATORS

Regarding the shift between the oral and written exams: For all of those courses which include an exam at the end, we need to know whether you intend to have an oral or a written exam in those courses which may shift between these examination forms. IFT is asking for a prompt feedback to the study section.

[Paragraph 7 of the faculty's exam regulations:](#) *If it's stated in the course description that the evaluation format varies between oral and written exams, depending on how many students have signed up for a course, the students need to be informed about the examination format after the registration deadline has expired.*

Responsibility: *Course leader is obliged to give written information, via Mi Side (My Space), on the decided examination format (written or oral) and inform the study administration of the department. Department's study administration follows up by forwarding the information to the faculty and the study administrative department which coordinates written exam dates at the UoB.*

We would also like to have feedback on those courses of the examination plan for which no candidates have signed up.



NOT JUST A GRAPH

Bodil Holst, member of the research group for nano science and electronics invites to an exciting guest lecture by Christin Buechner from the Fritz Haber Institut Berlin, on structure of 2-D glass surfaces.

[Read more about 2-D glass surfaces in this abstract.](#)

The lecture will take place in room 292 at Bjørn Trumpys house (A55), Monday, September 8th, at 11.15.

EVALUATION OF NORWEGIAN CERN-RELATED RESEARCH

Norwegian Research Council's panel for evaluating activities within the CERN-related research has visited IFT on May 27-28. The panel, consisting of Philip Burrows (Oxford), Albert de Roeck (CERN) and Barbara Jacak (Stony Brook) follow the progression in the NRC-financed project which started in 2012 and will continue until 2019.

Here is an excerpt from the summary of the report:

«The Panel was very impressed with the research presented in this review, and with the achievements of the young scientists whose work was highlighted. The Norwegian efforts on ATLAS, ALICE, particle and nuclear theory, technology developments, computing, and non LHC-based experiments at CERN are fruitful, and offer exciting promise for the future. [...] Norwegian participation in the ATLAS and ALICE detector upgrades, and realization of their full scientific promise, is a clear benefit growing out of prior and ongoing investments. The Panel encourages Norwegian participation in upgrade construction.»

[The whole report can be read here.](#)

Department leadership and IFT-posten congratulate.

MNT-CONFERENCE 2015

- NEW DEADLINE FOR REGISTRATION OF PAPERS

The MNT-conference 2015 will take place at VilVite-centre in Bergen, 18th and 19th of March 2015. The deadline for registration of the planned papers from the invited institutions has been extended to September 8th. [Here is the Call for Papers for this conference.](#)

More information on conference can be found at UHRs web page: <http://www.uhr.no/>

Link to preregistration of articles from institutions:

<https://response.questback.com/universitetsoghogskolerdetuhr/hcuvizujaf/>

IFT IN THE MEDIA

- Bjarne Stugu, professor of physics, had a column published in Bergens Tidende on Wednesday, August 27. [For whom is radon harmful, he asks.](#)
- Crina Silvia Ilea, associate professor II at IFT, was interviewed by NRK, on Tuesday, September 2. Fifteen of the world's largest ships pollute more than all the world's cars put together. – Air pollution caused by the international ship traffic is responsible for approximately 50 000 deaths per year, Just in Europe, and it costs the society more than 470 billion kroner annually, she claims. [Here is the whole article at NRK's web pages.](#)



INFORMATION: DIGUIB

DigUoB-programme focuses on the use of digital tools and support systems for lecturing at UoB. The programme consists of five projects, each of which focuses on digital lecturing, learning labs, learning platforms, digital evaluation and legal issues. For more information, check out the [DigUoB's web page.](#)

HORIZON DEBATE 2014 - IS PETROLEUM RESEARCH UNETHICAL?

VilVite-centre, Monday, September 8th, at 14.00-16.00

The Faculty of Mathematics and Natural Sciences' seminar series, Horizons - on great scientific issues - will as of 2014 also include one annual debate on a current and important research political subject.

This first Horizon debate is a follow up of the intense discussion which took place in the fall of 2013 and spring 2014, on whether petroleum research is unethical. UoB-leadership forwarded this issue to the Norwegian Research Ethics Committee for Natural Sciences (NENT), which handled the case in the spring of 2014 and delivered its opinion in June same year.

Rector Dag Rune Olsen will attend the debate, how about you?

[Here is the programme](#), and this debate is also listed under the events on [Facebook](#).

Open to all who are interested!

Refreshments offered during the break.

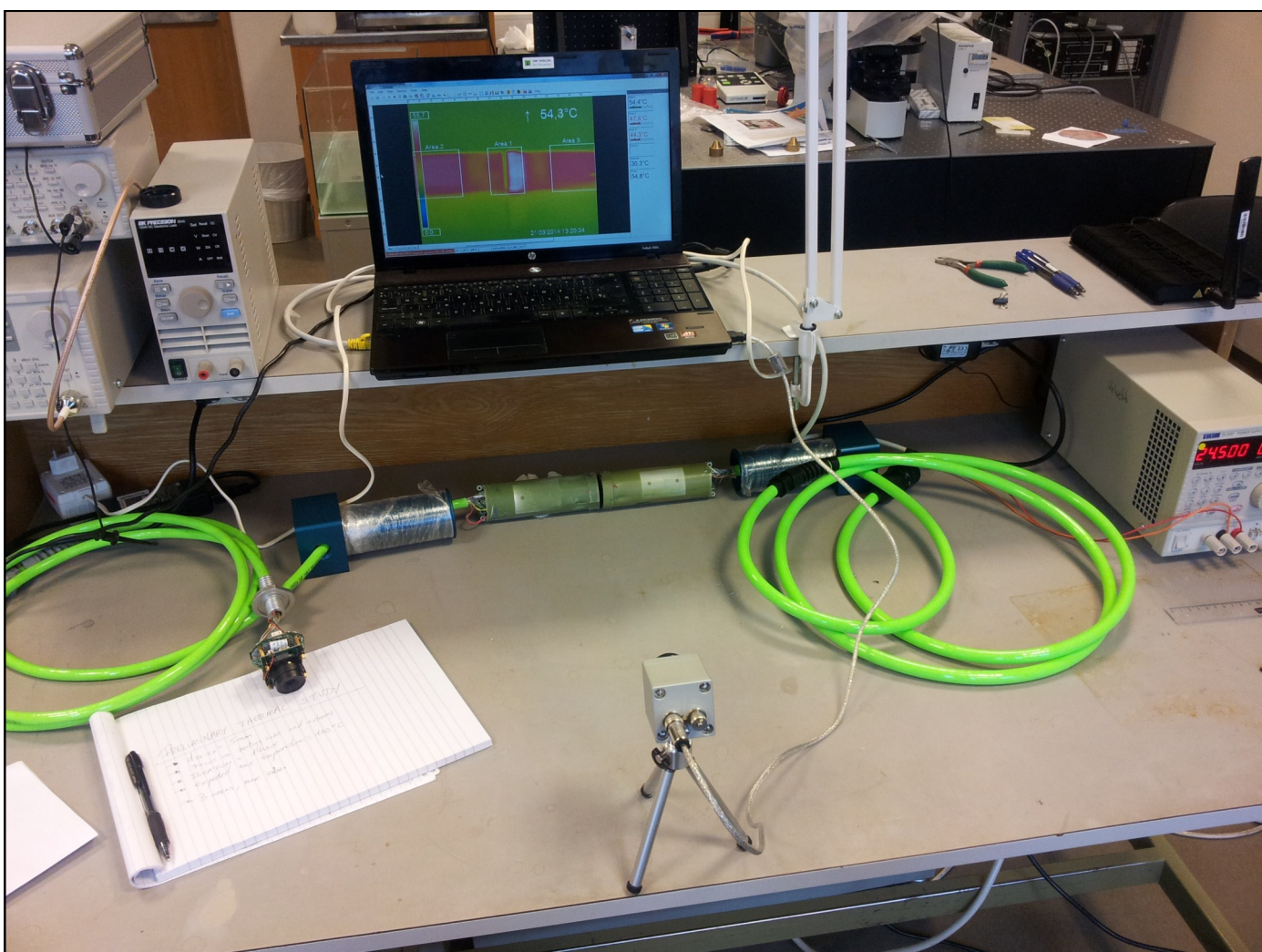


PHOTO OF THE WEEK Two Pinless Subsea Connectors (PSC) send video signals from an IP-camera. Thermal images are shown on the laptop screen. IFT participates in a project which aims to develop new technology which would offer high speed wireless communications under water at microwave frequencies, as well as power transfer solutions.

This photo was contributed by José Carlos Reyes Guerrero.

THE POSTDOC

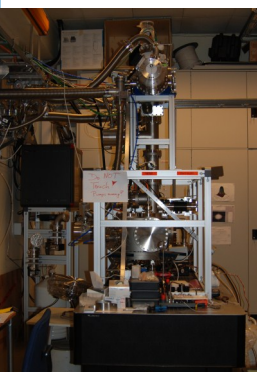
Name: [Sabrina Daniela Eder](#)

Supervisor: Bodil Holst, Research group for nanophysics

During her studies, Sabrina worked as ski instructor in the Alps, with a ski lift right outside the entrance to her house. Fate sent her to Bergen, where ski opportunities are not quite as good.

Sabrina Eder was born and grew up in salt mine city [Hallein](#) in Austria, a small town with ca 20 000 inhabitants. Much of the richness of the salt capital Salzburg is based on the excavations made in small towns such as Hallein, while Salzburg itself is known as birthplace of Wolfgang Amadeus Mozart, not to mention the movie *Sound of Music*. She has two sisters, one younger and the other older than herself, and both of them live in Puch, a small country town between Hallein and Salzburg. Astrid is primary school teacher, and Petra works at an employment agency.

Already at high school, Sabrina had for several years a summer job in AVL (Anstalt für Verbrennungskraftmaschinen List), a research-based engineering company in Graz, and this is where she discovered her interest in physics and technology for real. Upon completing high school education in engineering science in Salzburg, she enrolled in the studies of technical physics at Technische Universität Graz. In her master studies, she focused on researching OLEDs (organic light emitting devices).



While Sabrina lived in Graz, she got in contact with Bodil Holst, who at that point had a research stay at the same institution. This is how it came about that Sabrina moved to Bergen in the spring of 2008 in order to do her PhD in nano science with Holst, who in the meanwhile got a professorate at IFT. Sabrina's PhD dealt with the use of [helium atoms in microscopy](#). She defended her thesis in the spring of 2012, followed by a PostDoc position within the same field. Sabrina and her research group are for the time being in the finishing phase of completing the construction of a helium microscope, which is unique on the global scale. For Sabrina this is something particularly special, since she had mounted every piece of that microscope with her own hands, as well as designing all the parts herself.

During her studies, Sabrina worked as ski instructor in Gaschurn Ski Resort in the Alps, on the Swizz border. According to Sabrina, she spent a great deal of her study time there instead of actually studying. For an enthusiastic alpine skier, this was a great opportunity for financing her studies, in addition to doing the thing she enjoys the most in life.

Despite the lack of snow and a long way to alpine ski places; Sabrina loves Bergen, and she will never get bored of this wonderful city. She reads a lot, goes to the cinema once a week, loves good food (sushi or burger) and enjoys a good drink, preferably at Inside, Apollon or Garage. Alpine hills have for natural reasons unfortunately not been as accessible as before, but she has a go at other forms of extreme sports now and then, although she, according to her own words, has not managed to master all of the things she tried out equally well as skiing. For the time being, she mostly focuses on cycling and mountain climbing, but some time ago she also practiced canyoning and bungee jumping. Nonetheless, her favourite season is winter, preferably with a lot of snow and sun, and Sabrina claims that one can never have enough pairs of skis or sun glasses. As far as other curiosities are concerned, it is worth noting that she drives around on a tiny motorbike with 125 ccm, which she uses almost throughout the entire spring and summer.



Click on the pictures if you would like to see them in a bigger format.
Sabrina Eder's position as PostDoc expires in April 2015.

NEW PEOPLE AT IFT We have the pleasure of wishing one new colleague a warm welcome to our department. Arivazhagan Valluvar is employed as PostDoc at IFT until August 2016. Valluvar, or shortly Arivu, will join the research group for nano physics and electronics, under professor Bodil Holst.

Arivu comes from the state of Tamilnadu at the southeastern point of India. The state has a total of 72 million inhabitants, most of whom are Tamils. Arivu comes from a small town called Tharangambadi, a coastal town with cca 20 000 inhabitants. Tharangambadi was previously known as Danish East India or Trankebar, since it was a Danish colony from 1620 til 1845.

Arivu was educated in his mother tongue Tamil in his hometown. Upon completin his highschool education, he enrolled in a Bachelor programme in physics at T.B.M.L College, Porayar, not so far from Tharangambadi. After his Bachelor, Arivu moved to the million inhabitants city of Coimbatore, where he took a Master and later a PhD at Karunya University, supervised by professor S. Rajesh. His PhD thesis dealt with quantum confinement effect in semi-conductor thin films for application in solar cells.

During his PhD years, Arivu got the opportunity to conduct parts of his research at NTNU in Trondheim. His research stay was enabled by the Mobility Programme [YGGDRASIL](#) , and the project in which Arivu participated was supervised by Professor Randi Holmestad. This research stay was Arivu's first experience abroad, and naturally everything seemed new and exciting. His stay in Trondheim inspired him to try and find a research position in Norway, and he is very happy to be a part of IFT at UoB. Arivu says he is very pleased with his research group with a good working environment, and he is looking forward to continuing his academic career here in Bergen.

IFT-posten hopes Arivu enjoys his stay here in Bergen for the next couple of years.



Arivazhagan Valluvar in front of the Nidaros Cathedral, Trondheim, October 2012 .

NEW BOARD OF THE STUDENT COUNCIL AT IFT (FFT)

On Friday, August 29th, Fagutvalget for Physics and Technology (FFT) had elections for the new board. FFT is a student organization for physics and petroleum technology students at the University of Bergen.

FFT is a selection of six students who work for the students' interests and rights, both in terms of the academic and social life. FFT runs among other things its own student bar, \hbar (h-bar) which regularly arranges various events and is open on Fridays for all students. You are all very welcome!

This year, the board consists of Andreas Hagen as president, Frederic Bratlie as vice president, Kristin Brekke is in charge of h-bar, Gaute Haustveit Johansson in charge of planning the events, Sondre Nitter Vestad in charge of the web and Sverre Magnus Engø in charge of supplies.

The board in charge of FFT are very interested to hear from the students, and are happy to work for your opinions and suggestions. Don't hesitate to send e-mail to fagutvalget.fft@uib.no, or to contact them in the corridors. You can also visit their [Facebook page](#) or visit fft.uib.no for more information.



From the left: Sverre Magnus Engø, Frederic Bratlie, Sondre Nitter Vestad, Kristin Brekke, Andreas Hagen, Gaute Haustveit Johansson.

ECONOMIC SUPPORT FOR MASTER STUDENTS FOR FIELD STUDIES (TRAVEL/SEMINARS/ CONFERENCES/COURSES, ETC.)

As a Master student, you can apply for economic support for research-related travel and/or conferences, seminars, etc. The total sum for each student depends on the number of applications for this semester.

Remember to [read the guidelines](#) before you actually apply (Norwegian only.) [Here is the application form for support for field work and research-related travel](#) during the course of your master studies, and [here is the application form for support for seminars/conference](#).

Application deadline for fall 2014 is September 15th, and February 15th for spring semester. Please contact the study administration if you have any questions.

H-BAR

H-bar is 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!

INFORMATION: FIRE DRILL COURSE FOR ALL EMPLOYEES

All UoB employees should have completed the fire drill course, both theory and practice. This is stipulated by the Fire Law and HES-regulations. Fire drill is a course which takes two hours, with one hour of theory and one hour of practical fire extinguishing.

UoB has engaged Teknisk industrivern AS to hold this course. The price per participant is 270 kroner, covered by the faculty/department. NB! We are charged by the number of registered participants, not the number of those who actually show up for the course.

Registration for IFT employees should be done with our administration head [Grete Kvamme Erslund](#), who then sends the list to Teknisk industrivern. The course will take place at the Student Centre, Parkveien 1. The practical fire extinguishing will take place behind the Student Centre. In case there are many participants from the same unit, Teknisk industrivern can also come to your work place. The course takes place in groups of 20 - 25 participants.

NB! These courses tend to be filled up rather quickly, so don't hesitate too long with your registration.

Dates:

Thursday, October 2nd, from 09.00 – 11.00.

Thursday, November 6th, from 09.00 – 11.00.

Thursday, November 27th, from 09.00 – 11.00. **NB! In English.**

Thursday, December 4th, from 09.00 – 11.00.

INFORMATION: STUDY OPPORTUNITIES AT SVALBARD

On Thursday September 11th at 16:15 hrs, UNIS (The University Center in Svalbard) will be holding an information meeting for students in Auditorium 2 (Realfagsbygget). Here students will be informed about study opportunities and student life in Svalbard. UNIS offers courses within geophysics (space physics), technology, geology and biology. Those of you who choose to study at UNIS during spring 2015 will also experience something special: On March 20th, 2015 there will be total solar eclipse in Longyearbyen.

 **INFORMASJONSMØTE**
Universitetscenteret på Svalbard

Aud. 2, Realfagbygget
Torsdag 11. september kl. 16:15-17:15

-Informasjon om studiemuligheter, opptak via kvoter og studentliv på Svalbard

WELFARE OFFERS FROM UOB

To all students and employees at the University of Bergen!

A rare treat at [Bergen Medieval Music Days](#) 2014: **Beowulf** performed by [Benjamin Bagby](#)

Håkonshallen, Saturday September 6th, at 7 pm.

UiB price: 100/50 kr (Employees/students. Bring your UiB-ID to the ticket sales at the entrance. Ordinary price: 200/100 kr)

This is an opportunity to experience medieval literature as it was meant to be enjoyed: performed live! Hear Bagby sing the famous Anglo-Saxon poem, with English subtitles. Check out a sample of Bagby's performance [here](#).

The NY Times: "Mr. Bagby comes as close to holding hundreds of people in a spell as ever a man has."

And as an added bonus for employees and students at the University of Bergen:

Lecture by Bagby on the performance of Beowulf. Get your questions answered as Benjamin Bagby gives us his take on the epic poem Beowulf. Lecture/Q&A in English.

Sydneshaugen skole, Aud. Q, Monday September 8th 12.15-14.00

Free entrance. All are welcome!

Med vennlig hilsen/Best regards

Velferdsutvalget ved UiB / The Welfare Committee at UoB

INFORMATION: CHANGE OF MEDIA MONITORING VENDOR

The University of Bergen signed a new agreement for media monitoring. As of September 1st, the new vendor is [Retriever AS](#). This means that those of you who have personal portals for media monitoring through Opoint, should take this into account and prepare for a move to the new vendor. In order to make the transition as smooth as possible there will be a month of overlap. We will therefore keep the access to Opoint Monitor until September 30th, 2014. It is entirely up to you to continue with the media monitoring within the new solution.

The agreement with Retriever concerns monitoring of news media, both online and printed, in addition to a variety of other types of web pages. This allows both administrative staff and individuals to manage and decide the extent of materials they would like to follow themselves. Media clips can also be published as newsfeed at our own webpages on uib.no.

Those of you who still would like to keep their personal portals for monitoring, should contact Retriever as soon as possible in order to generate new search profiles.

Costs

The price for personal portals is 12 000,- NOK per year per unit. The price includes free support and training.

Contact information

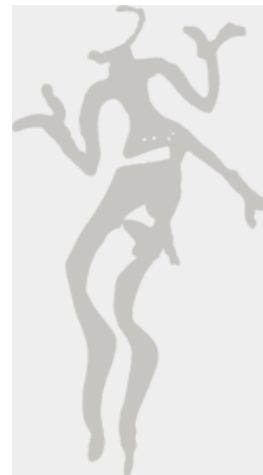
In order to set-up new portals, new search profiles and training, contact Retriever:

Thomas Skagen, tel. 482 41 323, e-mail: thomas.skagen@retriever.no

Kay Eskil Hellesø, tel. 977 72 971, e-mail: kay.helleso@retriever.no

If you have other questions, contact

Grethe Borvik Holmstrøm, 55 58 69 04, e-mail: grethe.holmstrom@adm.uib.no



FACTS FROM THE WORLD

*Can't find your keys?
Has the mobile gone on a hike together with your wallet?*

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A SMART PLACE® is a transient quantum state in time and space.*

*It's a rift in matter, and THAT is where you decide to put your things.
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*In quantum physics, you could say that if you find the place, it does no longer
exist. This is called "Schrödingers keys and wallet".*

*A smart place will eventually become a TOTALLY OBVIOUS PLACE
for anyone else but you.*

*This transformation occurs the moment after
you promise away your earthly wealth to the finder.
dedicate your life's work to Zarathustra.
you admit to everyone that you are a complete moron.*



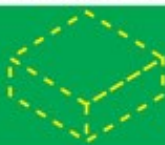
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et HELT ÅPENBART STED
for alle andre enn deg.



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øyeblikket etter...

du lover bort ditt
jordiske gods til finneren.

dedikerer din livsgjerning
til Zarathustra.

du innrømmer for alle at
du er en komplett idiot.

PUBLICATIONS

- Altinpinar, S.; Djuvsland, O.; Fehlker, D.; Haaland, O.; Huang, M.; Langoy, R.; Lien, J.; Loenne, P. I.; Nystrand, J.; Rehman, A.; Roed, K.; Rohrich, D.; Skjerdal, K.; Szostak, A.; Ullaland, K.; Wagner, B.; Yang, S.; et al.: *Upgrade of the ALICE Experiment Letter Of Intent* ALICE Collaboration JOURNAL OF PHYSICS G-NUCLEAR AND PARTICLE PHYSICS Volume: 41 Issue: 8
- Altinpinar, S.; Djuvsland, O.; Fehlker, D.; Haaland, O.; Huang, M.; Loenne, P. I.; Nystrand, J.; Rehman, A.; Rohrich, D.; Skjerdal, K.; Ullaland, K.; Velure, A.; Wagner, B.; Yang, S.; et al.: *Technical Design Report for the Upgrade of the ALICE Inner Tracking System* JOURNAL OF PHYSICS G-NUCLEAR AND PARTICLE PHYSICS Volume: 41 Issue: 8
- Csernai, L.P.; Wang, D.J.; Csorgo, T.: *Rotation in an exact hydrodynamical model* PHYSICAL REVIEW C Volume: 90 Issue: 2
- Johnsen, Helge; et al.: *Anisotropic lithosphere under the Fennoscandian shield from P receiver functions and SKS waveforms of the POLENET/LAPNET array* POLENET LAPNET Working Grp TECTONOPHYSICS Volume: 628 Pages: 45-54
- Buanes, T.; Dale, O.; Eigen, G.; Kastanas, A.; Liebig, W.; Lipniacka, A.; Latour, B. Martin Dit; Rosendahl, P.L.; Sandaker, H.; Sjursen, T.B.; Stugu, B.; Ugland, M.; et al.: *Electron reconstruction and identification efficiency measurements with the ATLAS detector using the 2011 LHC proton-proton collision data* ATLAS Collaboration EUROPEAN PHYSICAL JOURNAL C Volume: 74 Issue: 7
- Buanes, T.; Eigen, G.; Kastanas, A.; Liebig, W.; Lipniacka, A.; Rosendahl, P.L.; Sandaker, H.; Sjursen, T. B.; Stugu, B.; Ugland, M.; et al.: *Search for Invisible Decays of a Higgs Boson Produced in Association with a Z Boson in ATLAS* PHYSICAL REVIEW LETTERS Volume: 112 Issue: 20



USEFUL LINKS

[The IFT Webpages](#)

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[Webpages of the Faculty](#)

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[The Board of Faculty](#)

[The Faculty- Strategy and Vision](#)

[Pubmed](#)

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

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<http://fft.uib.no/>

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Technology, University of Bergen.

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