

# **DAWN News May 2019**

#### Dear DAWN family,

Welcome to the second DAWN Newsletter! Again, feedback and content suggestions for future newsletters are highly appreciated – just send an e-mail to: <a href="mailto:nannajensen@nbi.ku.dk">nannajensen@nbi.ku.dk</a>.

In the May issue of DAWN News you can read the following content:

- Annual Danish Astronomy Meeting
- Jonatan Selsing wins award for the most outstanding Doctoral thesis in Danish Astronomy 2018
- Buffalo workshop in Las Vegas
- COSMOS Team meeting in New York City 14-17 May 2019
- Pictures from Carlos' Ph.D. defense
- Summer program
- DAWN summit program/agenda (to be released soon)
- Employee News:
  - Upcoming birthdays
  - New hires

Happy reading!



## **Annual Danish Astronomy Meeting**

Both DAWN and DARK were well represented at the Annual Danish Astronomy Meeting, which took place in Nyborg during the first week of May. Although relatively short, this meeting was a nice venue to unite the varied research activities conducted by the Danish Astronomical community. The two most prestigious prizes were awarded to Jonatan Selsing (DAWN), for the most outstanding <u>Doctoral Thesis</u>, and Nikki Arendse of DARK for the best poster. The lecture-packed day activities were followed by an extended dinner which brought together the newest and longest-serving members of the community. The meeting is notable for having the most posters to date, which is naturally correlated with the highest attendance from students since its inception.

# Jonatan Selsing Wins Award for the Most Outstanding Doctoral Thesis in Danish Astronomy 2018

Jonatan Selsing has won the IDA PhD Prize, which is an award for the most scientifically outstanding astronomy PhD Thesis defended at a Danish university in 2018. Jonatan was presented with the price at the Annual Danish Astronomy Meeting in Nyborg, Denmark, in the beginning of May.

We, at The Cosmic Dawn Center, are incredibly proud of Jonatan and his achievements!

#### Jonatan and his research

Jonatan is a postdoc at DAWN and funded by DFF grant, awarded to Dr. Darach Watson, Associate Professor. Jonatan received his PhD degree in 2018 from the Dark Cosmology Centre under the supervision of Dr. Lise Christensen, who was also the person who nominated Jonatan for the award.

Jonatan's research is centered on the transient universe and how these events shape the cosmo-chemical evolution history of our Universe.

#### The IDA PhD Prize

The IDA PhD Prize is an award for the most scientifically outstanding astronomy PhD thesis defended at a Danish university. The winner of the IDA PhD Prize is expected to present his/her work at the Annual Astronomy Meeting, which Jonatan did on 02 May 2019.

#### The Award Winning Doctoral Thesis

Jonatan's Doctoral Thesis focused on Gamma Ray Bursts (GRB), the brightest things that explode in the Universe, what they tell us on the chemical enrichment history of the Universe, and their use as probes of the deepest cosmos. Due to his involvement with GRB's, Jonatan also helped locate and analyze the kilonova



associated with one of the first LIGO gravitational wave signals (GW170817) of the merger of two neutron stars, the phenomenon in which the processes that form the heavier elements occur.

About winning the prize, Jonatan says; "I'm deeply honored to receive this prize. This is an amazing pad on the shoulder for an early career scientist, such as myself!"

A huge congratulation to Jonathan for winning the award for the most outstanding Doctoral Thesis in Danish Astronomy 2018!



Jonatan Selsing of the Cosmic Dawn Center presenting his Ph.D. Thesis at The Annual Danish Astronomy Meeting.



## BUFFALO Workshop in Las Vegas in February



The 2<sup>nd</sup> BUFFALO workshop took place during the first week of February, hosted by the University of Nevada at Las Vegas. The tone of the conference was productive, but casual. There was strong encouragement from the senior organizers to have junior scientists actively engaged in the meeting, and the science of the collaboration at large.

Charles played a significant part as the co-leader of BUFFALO, with John and Vasily presenting preliminary results of their relevant PhD work.

There were plenty of opportunities for team building during the evening hours, where participants enjoyed the signature Las Vegas atmosphere. The team also took a trip to Death Valley, where the low light pollution showcased the richness of the night sky. There was also a trip to the Hoover Dam, which was enjoyed by a handful of early attendees who initiated some makeshift outreach activities.

Charles and John both spoke to a full room of guests at the Astronomy on Tap event hosted in collaboration with BUFFALO.

The team is looking forward to the 3<sup>rd</sup> workshop later this year!



## DAWN at the COSMOS Meeting 2019

During the week of 14-17 of May, The Cosmic Dawn Center participated in the COSMOS meeting in New York City.

#### The Cosmological Evolution Survey

The Cosmological Evolution Survey (COSMOS) is an astronomical survey designed to probe the formation and evolution of galaxies as a function of cosmic time (redshift) and large-scale structure environment. The COSMOS survey involves almost 100 scientists in a dozen countries.



DAWN Center Director Sune Toft speaking on the opening day of the 2019 COSMOS meeting

#### Talks were given by six DAWN members during the four-day meeting:

- John R. Weaver: "Photometry and Redshifts for COSMOS2019"
- Sune Toft: "The Cosmic Dawn Survey"
- Peter Capak: "Developing a Standard Model of Galaxies"
- Kate Whitaker: "The REQUIEM Survey: REsolving QUIEscent Magnified Galaxies"



- Charles Steinhardt: "Thermal Regulation and Star Formation"
- Vasily Kokorev: "In Search of Molecular Hydrogen, Constraining the Gas Content of Star Forming Galaxies"

Also present at the meeting was Center Coordinator Guarn Nissen.



DAWN Phd Student John Weaver speaking at COSMOS 2019

## A Change in Leadership

The Cosmic Evolution Survey (COSMOS) officially changed hands during the Cosmos week, the second major leadership hand-off since the survey began in 2003. Caitlin Casey, Jeyhan Kartaltepe, and Vernesa Smolčić have taken over as the project's leaders as the collaboration enters its fifteenth year.

Peter Capak has led the COSMOS team for the past nine years with the help of Simon Lilly. "Since taking over leadership of COSMOS in 2010 we have replaced almost every data set we started with including major



programs on Chandra, J-VLA, Keck, Spitzer, Subaru, and the VLT," Capak shared. "In the coming years COSMOS science will likely center around observations with ALMA, J-VLA, and JWST. Casey, Kartaltepe and Smolčić are ideally placed to lead the science in these areas."

Capak is stepping aside due to his significant roles in future space missions, including Euclid, WFIRST, and SPHEREx. Nick Scoville, the founder and first leader of COSMOS, handed over the reins to Capak in 2010.

The team learned a lot and luckily also had a bit of time to explore New York City!



DAWN Phd Student Vasily Kokorev exploring Central Park ahead of giving his COSMOS talk

# Carlos Gómez-Guijarro awarded his Ph.D. – Congratulations!

Carlos Gómez-Guijarro successfully defended his Ph.D. - thesis "High-redshift Progenitors of Massive Galaxies" on the 9th of May, 2019, and was awarded his degree. All of us at DAWN are very proud!

After the thesis defense, a reception for friends, family and co-workers was held at Vibenshuset, with Carlos, Center Director Sune Toft, who was Carlos' Ph.D. - supervisor, and Associate Professor Georgios Magdis all giving speeches.







Carlos Goméz - Guijarro with his principal supervisors at the reception at Vibenshuset

During the reception, Carlos was given commemoration presents, along with presents from his colleagues at DAWN, among which was a very nice hat for Carlos to enjoy his summer now.



← Georgios introducing Carlos and his Ph.D. defense at Auditorium A, at the Niels Bohr Building in Copenhagen.



## Summer program

In the beginning of June, we are welcoming a group of master's students who will be part of our Summer Program here at DAWN, Copenhagen. The students will be working with Charles Steinhart and Gabe Brammer until the end of August.

We are excited to meet the students!

## DAWN summit program/agenda (to be released soon)

We are currently working hard on a program that we can share with all of you. The program is expected to be shared by the end of this week or the next, but we can already say that we are planning a great week, and we are looking forward to seeing all of you in July!

### Employee News: Upcoming Birthdays

During the month of June, we have three birthdays coming up!

Bo Milvang Georgios Magdis and Peter Laursen

Everyone who has not sent me their date of birth yet, and would like to, is welcome to send it to me at nannajensen@nbi.ku.dk.

## Employee News: New hires

#### New Postdoctoral Fellow Joining DAWN Copenhagen in June

lary Davidzon (pronounced 'Yari Davidsohn') will be joining The Cosmic Dawn Center of Excellence in Copenhagen in the end of June. Currently, lary is working at Caltech, and he has been a very central person in the COSMOS Survey.

We are excited to welcome lary!

Thank you for taking the time to read this month's issue of DAWN News