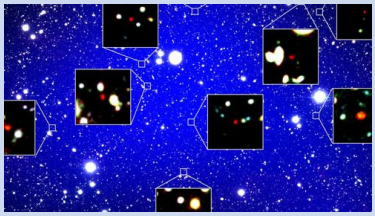
THE COSMIC DAWN CENTER

NEWSLETTER

Date: October 2019

RECORD BREAKING OBSERVATION

An international team of astronomers with participation by researchers from DAWN has discovered a protocluster of galaxies 13.0 billion light years away using the Subaru, Keck and Gemini Telescopes in Hawaii. This protocluster is the most distant protocluster ever found.



The discovery suggests that a large structure such as a protocluster already existed at a time when the Universe was only about 800 million years old. Finding and analysing protoclusters in the early Universe is a crucial step to understanding formation and growth of galaxies in overdense regions.

Another important aspect of the study is that we can study the distribution of galaxies in the cosmic web and relate what we see to the underlying distribution of dark matter. This can help us learn the precise relation between matter that emits light and dark matter.

You can find more information about this at DAWN's website following the link, and the scientific article (Harikane+19) following this link.

NBI SCIENCE DAY 2019

A new event has been created at NBI, to be held every year from now on.

The aim is to have a nice and inspiring day where NBI's researchers will show, tell and inspire each other with all their ongoing research. The group of participants spans from master students to full professors.

NBI Science Day 2019 will take place at the H.C. Ørsted Institute, Auditorium 1, on October 25 from 12:55 until 19:30. You can find the Programme following this link.

AusESO2020

The conference "The build-up of galaxies through multiple tracers and facilities" will be held in Perth, Australia, 17th-21st of February 2020, at the University of Western Australia Campus. Call for participants and speakers is open, you can follow this link. The deadline for contributed talks was October 4.

Key topics to be discussed during the conference include: The baryon cycle in our own Galactic neighbourhood, The Local Universe, Transients, Galaxies Across Time, Cosmic Dawn and the Epoch of Reionisation.

FIRST AID COURSE

On November we will have a First Aid Course with Falck. More information will follow.

UPCOMING VISITORS

Giacomo Girelli, from INAF-OAS Bologna, joined DAWN on October 16 and will be with us until mid-January. Giacomo will be developing galaxy mock catalogs with the implementation of several physical properties. He will also give a Cake Talk on November 7 about the stellar-to-halo mass relation over the last 12 Gyr and massive and old quiescent galaxies at high redshift.

Adarsh Ranjan, from Institut d'Astrophysique de Paris, will be joining us on October 29 to present the talk "Probing high column density neutral gas from the early universe in absorption".

Rachel Bezanson, from the University of Pittsburgh, and **Ilbert Olivier**, from Laboratoire d'Astrophysique de Marseille, have come to DAWN as censors for Mikkel Stockmann's PhD defence. Rachel also gave a Cake Talk on October 24 on "The Formation of Massive Galaxies: deep, high-redshift spectroscopy from the LEGA-C Survey and Beyond".

REJSUD2 COURSE

On October 29 there will be a RejsUd2 course conducted by Pia Lykke Kohring from NBI Admin. It will be held from 13.00 to 14.00 in the Lecture Room 4.4.12 at Vibenshuset.

EMPLOYEE NEWS

MIKKEL STOCKMANN PhD THESIS DEFENCE

Mikkel Stockmann successfully defended his Ph.D. thesis "Genesis of Giants – Massive Galaxy Evolution over the Past 10 Billion Years" on the 23rd of October 2019. Congrats Dr. Stockmann!

After the thesis defence, a reception for friends, family and co-workers was held at Vibenshuset. Both Mikkel and his advisor, Sune Toft, gave speeches. Mikkel also received gifts, including a camera with a waterproof case for his upcoming nautical adventure.

OUTREACH BY PETER LAURSEN

Recently, Peter Laursen of DAWN has been interviewed multiple times about whether the old saying "There are more stars in the night sky than grains of sand on all the beaches on the Earth", actually holds. Here are the links: Danish article, Norwegian article, Norwegian Radio Interview.

Furthermore, Peter has been interviewed about the Autumn Sky here in Scandinavia on the national Norwegian Radio Channel NRK. Here is a link to it.

Peter was also on the Danish Radio Channel Radio24syv two months ago, talking about exoplanet Pictoris Beta C. The airing can be found here.

UPCOMING BIRTHDAYS

[redacted]

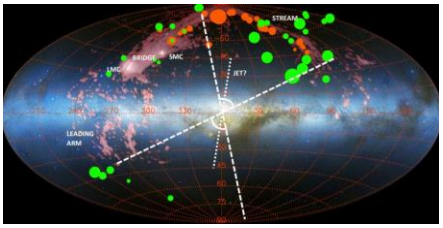
NEW MEMBERS

On November 1st our new secretary, Dorte Garde Nielsen, will join us!

JOHAN ON SEYFERT FLARES

Around 3.5 million years ago, a gigantic energy flare punched out from the center of our galaxy, the Milky Way. The radiation it released erupted in two energized cones that were so powerful, the impact could have been detected 200,000 light-years away.

The Seyfert flare, started out small near the center of the galaxy that's dominated by Sgr A*. As the cones formed and flashed their way through the galaxy, they expanded. The results will be published in ApJ next month. The article can be read here.



DAWN Professor Johan Fynbo discussed the flares for the Danish National Radio. The news story can be found here.

Thanks for reading! Comments, feedback or suggestions, please refer to clara.arteaga@nbi.ku.dk