

THE COSMIC DAWN CENTER NEWSLETTER

Date: December 2019

FARTHEST DUSTY GALAXY

Researchers have spotted an enormous, dusty star-forming galaxy 13 billion light years away from Earth, making it the farthest of its type ever measured without the aid of a gravitational lens. The galaxy, named MAMBO-9, was discovered using the ALMA telescope, in a collaboration among various international universities, including the University of Copenhagen and DTU.



“Dusty galaxies produce large number of stars and play an important role in the shaping of our Universe. However, because dust interferes with the light emanating from them, they are impossible to see with regular telescopes,” according to Sinclaire Manning, Guest Researcher at DAWN and PhD Student from UT Austin, who is currently writing her dissertation about the study.

You can find the ALMA press release [here](#), and the KU release [here](#). To learn more about MAMBO-9, find the paper from Dr Caitlin Casey [here](#).

CARBON HALOS

Researchers have discovered gigantic clouds of gaseous carbon spanning more than a radius of 30,000 light-years around young galaxies using ALMA. This is the first confirmation that carbon atoms produced inside of stars in the early Universe have spread beyond galaxies. Theoretical studies have not predicted such huge carbon cocoons around growing galaxies, which raises questions about our current understanding of cosmic evolution.

The result was obtained by Seiji Fujimoto – Postdoc at DAWN – and his colleagues. The research team notes that present theoretical models are unable to explain such large carbon clouds around young galaxies, probably indicating that some new physical process must be incorporated into cosmological simulations.



The team is now using ALMA and other telescopes around the world to further explore the implications of the discovery for galactic outflows and carbon-rich halos around galaxies. You can find KU’s press release [here](#), ALMA’s press release [here](#) and Seiji’s paper [here](#).

VISITORS

Johannes Staguhn, from John Hopkins University & NASA/Goddard Space Flight Center, has visited DAWN on December 18 and 19. He has given a Colloquium Talk to DAWN members about GLT collaborations.

FIRST AID COURSE

On December 5, DAWN hosted a First Aid Course with Falck.



Participants learned how to perform CPR, how to detect seizures and strokes, how to use an AED, amongst other things.



EMPLOYEE NEWS

JULEFROKOST

This year's Julefrokost was held at Munkekælderen on Friday December 13. DAWN and DARK members attended.

The evening started with a Cocktail Reception and a Traditional Christmas dinner followed. After that, we enjoyed Christmas carols and had a Fun quiz and Pakkeleg.



Huge thanks to the Christmas Elves – John, Vasily, Nikki and Cecilie – and to Guarn for organizing such a wonderful Julefrokost!



KU PROFESSORSHIP INAUGURATION LECTURE

On Wednesday December 4, Johan Fynbo of DAWN held his inauguration lecture as Professor at the University of Copenhagen.

In his lecture titled "Pieces to the Puzzle of Galaxy Evolution", he touched on many important past and current issues in astronomy as cosmology, walking the audience from his first paper until his current research.



After the lecture, Professor Fynbo was celebrated at the H.C. Ørsted Institute with a reception, attended by friends, family and current and former colleagues. Congratulations on your Professorship Johan!



SUK JOO KO'S DEFENCE

Suk Joo Ko of The Cosmic Dawn Center will defend his Master's Thesis "Spectroscopy of red Quasars" on the **6th of January 2020**.



Suk will have his defence in the Lecture Room at Vibenshuset (Lyngbyvej 2) from 12.30. The defence is open to the public.

UPCOMING BIRTHDAYS

In the upcoming month of January, we will celebrate one birthday:
Kimihiko Nakajima



happy birthday Kimihiko!

お誕生日おめでとうございます。