



Greetings from the Director Stephen Hall

As the nights draw in and the autumn colours fade (here in Sweden, at least!), we would like to share with you the latest news from LINXS.

Firstly, we are very pleased to have started up our new (fourth) LINXS Theme, "New Materials for Energy and Sustainability". The Theme started last week with an (on-line) kick-off, at which it was great to see new faces and hear new (for LINXS) science questions discussed. The kick-off developed the initial Theme ideas and the working groups are now refining the program for the Theme for the coming year. Please check out the Theme pages on the LINXS website for more information and if you want to get involved just contact the Theme or working group leaders. We are looking forward to an exciting few years with this new grouping and hope to see the development of new connections, with the existing Themes and the wider LINXS community, towards the advancement of science with x-rays and neutrons in all areas.



We continue (as the rest of the world) to adjust to the new ways of working imposed by the on-going Covid-19 pandemic. We have successfully taken a number of meetings and events on-line, through which we are developing good practices. In fact, we can see that this will continue to be a key part of our working practices in the future. In many cases we are also finding that on-line is a good approach, e.g., to reach a wider audience and to reduce travel. A good example of this are the webinars in our on-going series targeting researchers new to x-rays and neutrons "Let's Dive into the Atoms".

On the subject of webinars, we are also very pleased to see the success of our new webinar series on coherent x-ray diffraction techniques, "CoWork" (the name comes from the original plan to have a Coherence Workshop => CoWork). This series focuses on the exploitation of the coherence properties of x-rays, through inverse microscopy techniques (CDI, Ptychography, Holography), for advanced materials characterisation.

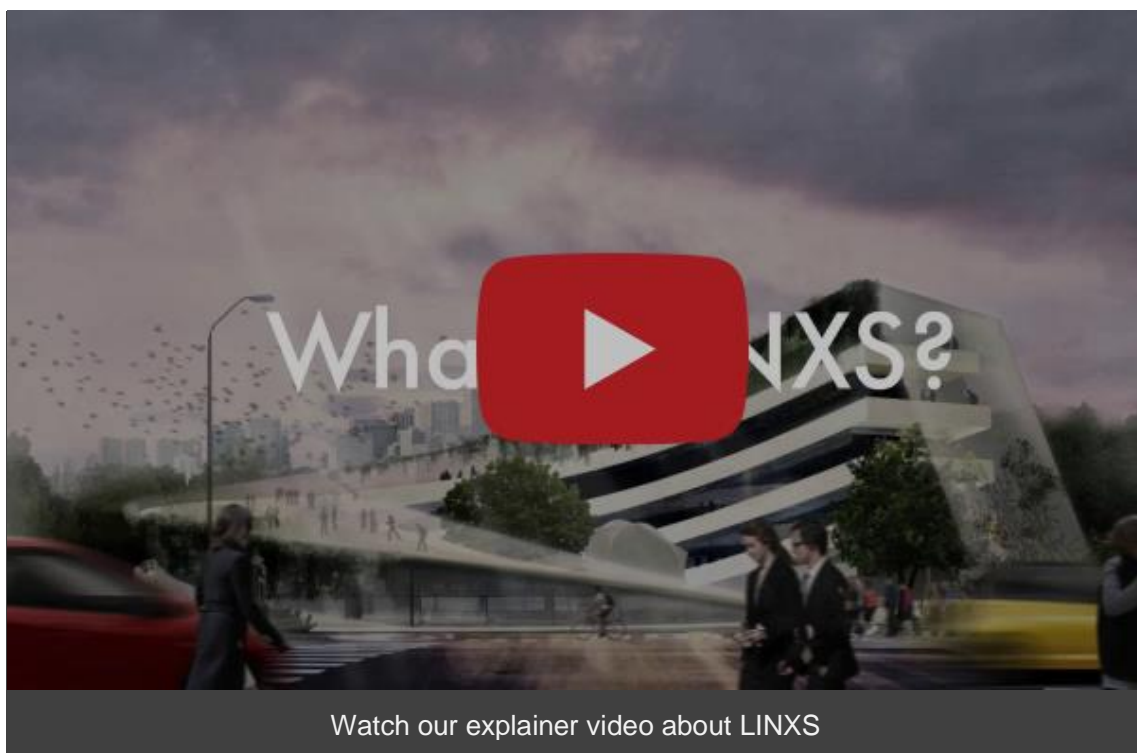
At our recent, LINXS Town Hall event, we discussed paths forward for LINXS and what is needed for creating the best conditions for advancing x-ray and neutron science, including making best use of on-line possibilities versus the need to meet and how we can develop connections across research areas that could lead to new research possibilities. Following up on this is the up-coming LINXS Science Day (16th December), at which our LINXS themes will present snap-shots of the research in their respective fields with the aim to encourage scientific discussion across the themes and hopefully ignite new collaborations.

We can also highlight the Time Resolved Structural Biology event, "Seeing the Structure of Motions" at the end of November. You can also read on the LINXS webpages about our collaboration with Big Science Sweden, a report from the Masterclass on Food, an article on the new webinar series, and a reflection on the challenges of organising online scientific events.

As a final note, LINXS recently closed its most recent theme call and we are now evaluating the proposals with a view towards starting the 5th LINXS theme next summer!

We hope to see many of you at the Science Day on-line on 16th December (see details below), which is open to all! And keep an eye on the LINXS website (Theme pages and events pages) to keep track of what is happening.

Stay well and keep safe!



LINXS Science Day, 16th December

Welcome to LINXS Science Day - an event featuring current research related to some of the content in LINXS four themes - Imaging, Dynamics, Integrative Structural Biology, and New Materials. The presentations are done by both invited speakers as well as theme and working group members,

The aim with LINXS Science Day is both to present LINXS themes and related research, but also to encourage scientific discussion and to ignite potentially new collaborations.

[Read more about the event and register at LINXS.se](https://www.linxs.se)

Masterclass on Food - a challenge but a great success!

The Masterclass on Food course was a great success - in spite of having to remove the practical experiments, and the challenge of having both physical and digital attendance from several different countries.

Anna Ström, Professor at Chalmers University of Technology, and part of the LINXS Working Group on Food Science and Technology, shares her reflections on organising the course.

[Read reflections from the course organisers and participants at LINXS.se](#)



LINXS Webinar Series CoWork

A new LINXS webinar series aims to make the community of researchers using techniques based on coherent x-rays larger and more diverse. It is organised under the Imaging theme.

– We want to encourage more researchers to explore these techniques and tease out how we can broaden the scope of advanced material characterisation, says organiser Gerardina Carbone, beamline scientist at MAX IV, and member of the Working Group: New opportunities in Imaging with x-rays and neutrons

[Read an article about the webinar series at LINXS.se](#)



LINXS and the next generation of research infrastructure

LINXS is participating in the yearly Big Science Sweden conference in November. The aim of the conference is to create a space to discuss and solve some of the many challenges involved in building research facilities. Ahead of the event, Martin Stankovski reflects on the importance of simultaneously focusing on both using existing research infrastructure, and developing the next generation of accelerators, laboratories and beamlines.

[Read the article with Martin Stankovski at LINXS.se](#)



Thomas Ursby reflects on challenges of organising scientific activities in times of corona

LINXS chats to Thomas Ursby, core member of the Integrative Structural Biology Theme, and project manager for the MicroMAX beamline at MAX IV, about the challenges of organising scientific events during the corona pandemic. The event, Time Resolved Structural Biology – Seeing the Structure of Motions, was moved forward several times, before it was decided to hold the event online.

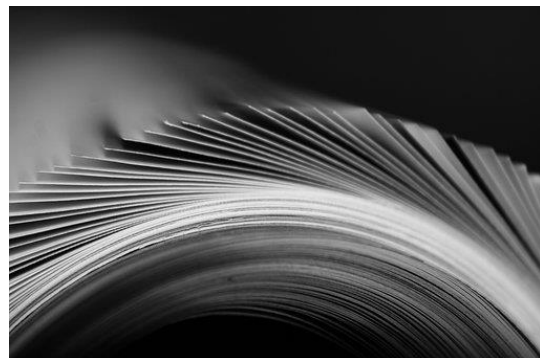
[Read an interview with Tomas Ursby at LINXS.se](#)

LINXS Educational Feature

LINXS has developed a new educational page at LINXS.se to support researchers to start using neutron and x-ray techniques in their own work. This resource will be a complement to our other scientific LINXS activities.

Feel free to use this material in any lectures or classes targeted at students or other researchers. We also welcome feedback.

[LINXS educational page at LINXS.se](#)



Articles about LINXS in Swedish

We have featured some of LINXS' work on Lund University's Swedish web page and in Lund University's Magazine.

[Ny satsning vill stärka grundforskningen för att klara framtidens energibehov](#)

[Röntgenljus lär oss mer om forntiden och kastar nytt ljus på människan](#)

[Flykten färgade synen på livet och karriären, LUM](#)



Opportunities in x-rays and neutrons for researchers

We wish to notify you about the following opportunities:

- [IAEA Launches New Neutron Imaging E-Learning Course to Preserve Knowledge, Improve Services and Promote the Use of Research Reactors](#)

LINXS events and related events

Here is a list of all the current events and activities taking place at LINXS, in partnership with LINXS or related to LINXS. Due to the current corona pandemic, many activities have had to be postponed. We will inform you once we have new dates for our events and activities.

Events are open to all researchers from academia and industry.

[LINXS Event - CoWork series - Spatially resolving the structure of topological defects in ferroelectric nanocrystals, with Edwin B. Fohntung, Rensselaer Polytechnic Institute, 13 November](#)

[LINXS Related Event - SNS-Seminar series – Seminar 1: Neutron Imaging, 17 November](#)

[LINXS Related Event - Big Science Sweden Conference, 24 November](#)

[LINXS Event - Time Resolved Structural Biology – Seeing the structure of motions, 23-25 November](#)

[LINXS Event: Let's dive into the atoms! - XFEL science and introduction to beamline proposal writing, with Stefano Bonetti, Dept. of Physics, Stockholm University, Sweden, 25 November](#)

[LINXS Related Event - Small-Angle Scattering Workshop, 8-10 December](#)

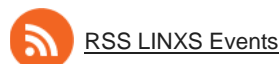
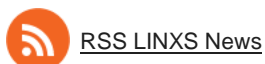
[LINXS Event - Science Day, 16 December](#)

[LINXS event - Amyloid Workshop: User-friendly analysis of spectroscopy data with Quasar - multivariate statistics and machine learning, 13 - 15 January](#)

[LINXS Event - Amyloid Workshop: Heart and Mind, 4-5 March 2021](#)

[LINXS Event - Bridge the gap in amyloid Analysis, 22-23 March 2021](#)

[LINXS Partner Event - Northern Lights on Food 2, 9-11 June 2021](#)



The LINXS newsletter is sent out approximately four times a year. It highlights news and events from LINXS, as well as information in the area of neutron and x-ray science.

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