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On Thursday, 15th December, it was a pleasure to welcome our new President, Anders Söderholm, to the School. We visited all 4 Departments, so he got a good impression of the breadth of our activities. We finished with a nice lunch at the Mathematics Department, which allowed us to discuss future challenges and possible solutions. I believe the visit made a very good impression and demonstrated excellent teamwork at the School, which I am proud to be part of!

During lunch, the administrative staff surprised the President by singing and dancing during the Christmas carols.

Watch video

Sandra Di Rocco Professor Dean of the Faculty of Engineering Sciences



The SCI School wishes to everyone Merry Christmas & a Happy New Year!

Merry Christmas and a Happy New Year!

That's the wish of Anders Söderholm, President of KTH and Kerstin Jacobsson, University Director to all of you at KTH in this year's Christmas Greeting.

Watch the Christmas Greeting's video here

Future Education at the School of Engineering Sciences

Discussions regarding the Future Education at KTH were conducted during the past year, specifically regarding the SCI School. At the SCI school, the director and vice directors of first and second cycles studies are currently planning how the development work will be organized and communicated over the coming years. The development programme is based on the 13 principles of the framework for Future Education at KTH that KTH's President decided on June 14, 2022.

Read more

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Interview with Tomas Ekholm

Tomas Ekholm recently won the 2022 KTH Pedagogical prize. We talked with Tomas regarding this great achievement.

Read interview



Interviewing Romain Rumpler

Romain Rumpler was recently appointed as an associate professor in engineering acoustics. We interviewed Romain regarding this new position, as well as his research and more.

Read interview



Interview with Anna Delin

Anna Delin, professor of materials and nanophysics, has been granted SEK 25,200,000 over five years from the Knut and Alice Wallenberg Foundation for the project LIGHTMATTER. Anna spoke to us about it.

Read interview



Interviewing Lucie Delemotte

Lucie Delemotte, associate professor of biophysics, and her collaborators have been awarded a grant of SEK 27,100,000 over five years from the Knut and Alice Wallenberg Foundation. Lucie informed us of the research goals of the project as well as the academic groups that will be part of it.

Read interview



The bridge that connects AlbaNova's main building and House 3 is finally in place.

Watch the video showing when the bridge was put into place

Watch video



The IT department are looking for teachers who want to test the new Personal menu

Are you a teacher at KTH and curious about testing the new Personal menu? Then you can become our beta tester and give us your feedback. Both big and small are welcome. Read more about how it's done.

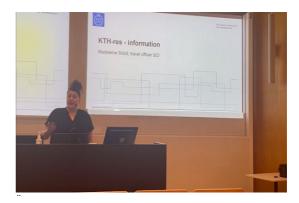
<u>Read more</u>



Photo: www.unsplash.com

Business travel

Are you going on a business trip? There is a lot to consider before you go, during the trip, as well as after you have returned. In these pages, we will guide you to the latest information about how to book a business trip, rules and agreements, travel insurance, debit cards, etc.



Did you miss the information pass of the new travel expense system (KTH-res)?

Now you can see it in the link below.

Read more

Read more

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KTH Innovation Discovery Program

Are you a researcher at KTH who is curious about innovation? Do you want to learn more and explore if and how your research results could create impact outside of academia? Then the KTH Innovation Discovery Program could be for you!

Learn about innovation this spring

What does impact, commercialization and innovation really mean? How do you take your research from the lab to the market, and how can you figure out if you might want to try? This program will give you the answers you need –with minimal time spent.

Join the program!

Follow the link to submit your registration. The number of participants is limited. Registration is open until **15 January, 2023.**

Read more and register here



Dan Hoflund (board member Hans Wigzell Research Foundation), Mats Danielsson och Magnus Carlsson (board member Hans Wigzell Research Foundation)

Mats Danielsson receives the Hans Wigzell Research Foundation's science prize amounting to SEK 925,000

The Hans Wigzell's Research Foundation awards its annual scientific prize, to



The Göran Gustafsson Prize for young researchers (younger than 36 years on 1/1-2023) opened the call for the 2023 prizes

In 1989 The Göran Gustafsson Foundation for Research in Natural Sciences and Medicine was established,

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Professor Mats Danielsson at the KTH Royal Institute of Technology in Stockholm. Professor Mats Danielsson receives the prize of SEK 925,000 for his research around medical imaging technology, a technology that can enable earlier diagnosis of cancer and cardiovascular diseases.

Read more

with a donation of 270 million SEK. Today the foundation makes awards of approximately 27 million SEK annually. The primary objective of this foundation is to promote basic science in molecular biology, physics, chemistry, mathematics and medicine.

The deadline for the Göran Gustafsson Stiftelse2023 is **January 27th, 2023**

Read more



In memory of Göran Lindblad

Göran Lindblad, professor emeritus in theoretical physics at the physics department of KTH, passed away unexpectedly on November 30, 2022 at the age of 82. He worked at KTH his whole career and remained active until the end, coming to his office regularly. Göran Lindblad was an outstanding scientist who made important contributions to quantum physics. He was one of the founders of quantum information theory and derived a fundamental equation describing the time evolution of open quantum systems now known as the Lindblad equation. Today, the Lindblad equation is widely used by physicists in many different fields and has entered undergraduate textbooks.



GENERA workshop: Segregation, unconscious bias & myths - threats to fair physics careers

We are pleased to announce that due to the editor's efforts KTH is now part of the Genera Project (Gender Equality Network in the European Research Area).

The first workshop, "Segregation, unconscious bias & myths - threats to fair physics careers" was held online on December 15th. The workshop was aimed at Ph.D. students in physics.

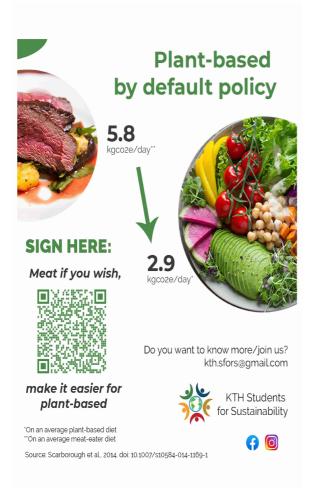
Stay up to date with future activities



About Corruption and Unethical Conduct

What is right and what is wrong? Just because something is permitted or legal does not necessarily mean that it is appropriate or judicious. This booklet will provide support and guidance in this work.

Read more



Plant-Based by Default

Why plant-based?

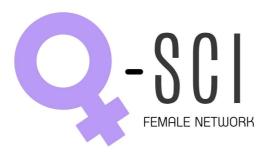
There is strong scientific evidence that the food industry massively contributes to greenhouse gas emissions. This impact can be drastically reduced by switching from the current average 'western' diet to a plant-based diet.

Our proposed solution is that we suggest that KTH sets plant-based food as the

default food option served both on a regular basis and at its events, yet giving every single person the possibility

and freedom to choose a different food option. This would help KTH reach its sustainability targets, as well as assert its leading position in fighting climate change.

Sign here to support



Female faculty network Q-SCI

Merry Christmas greetings from the Q-SCI network! This autumn we have learned about the documentation of gender-based violence and sexual harassment at KTH through Åsa-Karin Engstrand and about experiences and challenges as a female leader through Pia Sandvik. As promised, we will restart our mentorship program for female PhD-students and early-stage researchers with the new year, so make sure to recommend new colleagues to sign up for our emails! Easiest is to write to <u>g-koordinator@sci.kth.se</u>.

Suggestions for topics of seminars,

workshops and other activities are always welcome!

<u>Q-SCI website</u>

SCI PhD Student Council

Dear PhD students of SCI,

Thank you to everyone who voted in the council election and to those who attended the election meeting! After a long period of isolation, it was a great pleasure to organize events and meet in person. Expect the same motivation from your newly elected representatives, of which a complete list is posted on our <u>intranet page</u>. Check it out and get to know who the PhD student representative (PAD) for your programme is!

We wish you a happy winter break, surrounded by friends and family, and will see you next year!

On behalf of the 2023 board, Mattias Åstrand (Chair), Charlie Börjeson & Vlada Gaisina (Vice-Chairs), Jana Vasiljevic (Event Manager) and Sai Kausik Abburu (Webmaster).

SCI PhD Student Council



We Congratulate

Galtier Lambert appointed as associate professor in mathematics with a specialization in mathematical statistics, December 2022.

Romain Rumpler appointed as associate professor in engineering acoustics, November 2022.

Rebecca Lingwood reappointed as affiliated professor in fluid mechanics, December

2022 to November 2025.

Mahdi Saadati reappointed as affiliated faculty in solid mechanics, October 2022 to September 2025.

Roger Larsson (Saab Aeronautics) has been appointed as affiliated faculty in aeronautical engineering, January 2023 to June 2025.

Recent Doctoral Graduates

Armin Shahmardi (Engineering Mechanics) Numerical study of interface dynamics and phase change.

Boris Petkovic (Mathematics) Rigidity properties of certain discrete solvable group actions on tori.

Elin Sandberg (Physics) Advanced fluorescence-based fluctuation methods for biosensing.

Elisabetta Nocerino (Physics) A Comprehensive Experimental Approach to Multifuntional Quantum Materials and their Physical Properties: Geometry and Physics in Condensed Matter.

Federico Izzo (Applied and Computational Mathematics) High order trapezoidal rulebased quadratures for boundary integral methods on non-parametrized surfaces.

Jinchao Zhu (Vehicle and maritime engineering) Computational weld mechanics -Increased accuracy in fatigue assessment, distortion and residual stress analysis.

Johan Nordstrand (Applied Physics) At the mountains of modeling – multiscale simulations of desalination by capacitive deionization.

Kristian Rönnberg (Engineering Mechanics) Numerical predictions of heat-transfer applied to electrical machines.

Patrick Mutter (Physics) Quasi-phase matched devices in Rb-doped KTiOPO4: counterpropagating nonlinear interactions, domain dynamics, and waveguides.

Philip Croné (Solid Mechanics) Continuum modelling of work hardening in precipitation hardened alloys.

Ramon Pozuelo Ruiz (Engineering Mechanics) Study of adverse-pressure-gradient effects on a flat-plate boundary layer at high Reynolds numbers.

Rinat Yapparov (Physics) Carrier dynamics in blue and green InGaN LED structures.



School of Engineering Sciences (SCI)

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