Centre for Symmetry and Deformation

Department of Mathematical Sciences, University of Copenhagen

CENTER HIGHLIGHTS 2018

This penultimate year in the centers lifespan was marked by new research breakthroughs and papers making it into top journals. Postdocs secured permanent jobs elsewhere in the world, with Haugseng getting a lectureship at NTNU Trondheim, along with the Viggo Brun Prize, and Szabó securing a tenure track position at KU Leuven.

ACTIVITIES. Being an even year, we hosted the Young Topologist Meeting, which had a record setting 196 registred participants and featured inspiring keynote talks by professors Hill and Mann, along a display of young talent in the contributed talks. Three masterclasses, with included lecture series by professors Greenlees, Balmer, Noel, and Schwede were also highlights. With 106 invited talks at 96 events around the world we certainly got our share of international exposure. A large emphasis semester at the Isaac Newton Institute in Cambridge in the fall, also made for fruitful interaction, with a busy back-and-forth.

RESEARCH. One definite highlight of the year was the development by Galatius, together with former center postdocs Kupers and Randal-Williams, of a whole new approach to homological stability, devising a way to study secondary, and more general higher order homological stability—they started carrying out this program e.g., for the mapping class group, already getting a wealth of new information. Barthel, Hausmann and collaborators managed to extend results of Balmer–Sanders on the spectrum of the equivariant stable homotopy category. Their new paper quickly got accepted at *Inventiones*, along with the paper by Szymik–Wahl on the homology of the Higman–Thompson groups from 2016. Overall we had 34 published papers, and 34 additions to our preprint series, with 15 postdocs and 12 PhD students at the center at the end of the year.

EDUCATION AND OUTREACH. We supervised 4 PhD theses, 7 MS thesis and 11 BS theses, taught 13 courses directly related to the center's research. In addition to our regular outreach events, such as stands at the culture night, and evening talks aimed a high school students, we also e.g., took part in a video production, explaining to a younger audience what a professional mathematician does.

Please visit sym.math.ku.dk for more information.

Funded by

Danmarks Grundforskningsfond

Danish National Research Foundation