

The Danish Women in Physics network (KIF) inaugurated a talent prize in 2010. The purpose was to recognize the achievements of able and talented young female physicists and to further support them in their career development. The KIF talent prize thus highlights highly talented individuals, but equally important, the talent prize also serves as an accelerator for mainstreaming in physics and highlights the importance of role models for younger talented women physicists.

This is the third time the KIF price will be awarded.

The 2010 Women in Physics talent prize winner was Lotte Holmegaard, a laser physicist from Aarhus University, having worked at DESY in Hamburg and presently a post-doc at AU. Lotte Holmegaard was awarded the prestigious Lundbeck Foundation talent prize, also in 2010, to a researcher below the age of 30 years. The 2011 Women in Physics talent prize winner was Tina Hecksher who was awarded the price for original work in understanding the dynamics of supercooled liquids. Tine Hecksher is now a post-doc at RUC. The first two Women in Physics talent prizes thus came to exemplify the excellence associated this award and set the standards for Women in Physics talent prize.

The KIF mandate specifies scientific originality, successful dissemination of research results and an extraordinary teaching portfolio as discriminators in the selection process. The committee takes note of these qualifiers together with the potential for further development, based upon past performance and achievements at the highest international level, a particular independent effort, ability to navigate and orient oneself in complex scientific environments and, finally, a clearly expressed drive for excellence.

KIF has received 4 nominations for the KIF 2012 talent prize. These 4 nominations represent a spectrum of modern physics ranging from cosmology, atomic and molecular physics, advanced optics and photonics and particle physics.

All 4 nominees have accomplished great achievements in their early career steps with already clearly visible independent scientific profiles. All four nominations are well argued with focus on the classical core issues framing physics research that is originality, deep analysis and a drive to attack difficult problems. The nominees represent different “physics age”, with some rather seasoned careers already visible while other nominees represent very young, however clearly visible, profiles of surprisingly power. The committee notes, that the high level set by the 2010 and 2011 KIF talent prizes, will be met also in 2012.

The KIF 2012 talent prize goes to Christine Hartmann (CH) from the Niels Bohr International Academy at the the Niels Bohr Institute at University of Copenhagen. CH has finished her Master’s thesis in 2011 being enrolled at KU and the Kavli Institute for Theoretical Physics, University of California. CH has recently started her Ph.D. work at the Discovery Center at University of Copenhagen. CH is a particle physicist who has shown extraordinary initiative in defining original research, performing deep theoretical analysis and writing up the results in two refereed journals, one as a first author and the second as a single author. Both papers are of substantial depth as well as complexity.

Citation: Christine Hartmann is awarded the KIF 2012 talent prize for ground breaking and independent work on neutrino oscillations, particularly in identifying a symmetry group – the Frobenius group  $T_{13}$  – as an effective basis for explaining the observed near-exact tribimaximal mixing of the three known neutrinos with a good fit between the charged lepton sector and the neutrino sector. Furthermore to couple the Frobenius group description with the canonical see-saw mechanism of neutrino mixing to actually predict physical neutrino masses and to describe deviations from tribimaximal mixing in terms of higher order perturbation theory as well as predicting allowed regions for neutrinoless double beta decay.

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