

# 2019 IBS- CALDES Special seminar

- ✓ **Date & Time:** Thursday, October 24 at 4:00PM
- ✓ **Venue :** Seminar Room #306, Hogil Kim Memorial Bldg.
- ✓ **Speaker :** Prof. Tero Tapio Heikkila(University of Jyvaskyla)
- ✓ **Title :** Superconductor-ferromagnet systems out of equilibrium

Ferromagnetism and spin-singlet superconductivity are antagonist orders and hardly coexist in bulk materials. However, hybrid nanostructures allow for the possibility of combining the two phenomena via mutual proximity effects. The combination leads to the emergence of novel features not present in either system alone. I will discuss some of those features in my talk, focusing especially on nonequilibrium effects - giant thermoelectric effects at interfaces, electron kinetics inside bulk spin-split superconductors, and the thermoelectrically driven magnetization dynamics.

F.S. Bergeret, M. Silaev, P. Virtanen, and T.T. Heikkilä, Rev. Mod. Phys. 90, 041001 (2018).

T.T. Heikkilä, M. Silaev, P. Virtanen, and F.S. Bergeret, Progr. Surf. Sci. 94, 100540 (2019).

R. Ojajarvi, J. Manninen, T.T. Heikkilä, and P. Virtanen, arXiv:1907.00424.

M. Silaev, R. Ojajarvi, and T.T. Heikkilä, arXiv:1907.00539.

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