

AKC 1: AKC

Time: Wednesday 11:00–13:00

Location: HSZ/0004

Invited Talk AKC 1.1 Wed 11:00 HSZ/0004
What's wrong with me? — ●PAULINE GAGNON — CERN, Geneva

Why are sexism, homophobia and racism still so prevalent in physics? I start from my personal experience to demonstrate that in fact the personal is political. CERN, the largest physics laboratory in the world, welcomes scientists from 118 nationalities but still 80% of them are white and 80% are male. I examine why this is so by reviewing many contributing factors and suggest a series of easily applicable measures that could greatly improve the situation. These measures would benefit all scientists, regardless of their gender, race, sexual orientation, physical ability or religion. It has been established that diversity benefits science by increasing the creativity potential, a key ingredient to in scientific research.

Invited Talk AKC 1.2 Wed 11:45 HSZ/0004
Workplace cultures in physics as a game changer for equal opportunities — ●MARTINA ERLEMANN — FU Berlin, FB Physik

In recent decades there has been a growing awareness that a scientist's gender can have an impact on a career in physics, even though it should have no influence. This applies also for ethnicity or national background, social background, and other social characteristics which can have a detrimental impact on a career in science. The talk will present research on gender and diversity in physics, with a particular focus on studies of workplace cultures in physics and their impact on young scientists' sense of belonging to the physics community. It will be argued that improving the workplace cultures can be a game changer in combating discrimination and diversifying the physics community, which would also benefit physics research.

Invited Talk AKC 1.3 Wed 12:30 HSZ/0004
Belonging – a key to success in STEM?! — LENNART BRADEMANN, DENISE DÖRFEL, ●BARBARA M. GORDALLA, and ANIKA IH-

MELS — Fakultät Psychologie, Inst. Arbeits-, Organisations- und Sozialpsychologie, TU Dresden

Women continue to be underrepresented in science, technology, engineering or mathematics (STEM) fields as students and also in professional roles. What factors influence women's choice, persistence, and success?

In the US, studies evidenced that women do not feel like they belong in STEM community: they experience an impeding study climate (also called *chilly climate*) or suffer from stereotypical views on possible careers. This results in a decreased desire to choose a STEM carrier (for an overview see Shapiro & Sax, 2011). The probability to drop out of the program (Höhne & Zander, 2019b; Peters et al., 2015) is increased in the case of high *belonging uncertainty*, or when there is a conflict between an occupational stereotype and one's self-description.

The talk presents results from an online survey conducted among students, focusing on the field of physics. 122 physics students (40% female) completed it regarding success in studying physics (GPA, number of last attempts for an exam), turnover intention, chilly climate (e.g. exclusion, hostility), expectation of success (e.g. perceived potential, sense of belonging (e.g. belonging uncertainty), identification with physics, enjoyment, interest, a list of adjectives to describe oneself and to describe a *successful physicist*, and sociodemographic variables.

Results revealed lower social belonging and higher belonging uncertainty as well as a worse stereotype fit for women as compared to non-female students. Especially, social belonging turned out to be the most important predictor for GPA, identification, turnover intention, interest, enjoyment, perceived potential and self-efficacy. Social belonging hence was identified as an important influencing factor to enhance women's interest, persistence, and success in STEM. Therefore, this factor demands for more attention in the future, both in research and in actual working environments - for a continued success of Germany in STEM fields.