PROGRAM 2027

DEVELOPING STEM MOTIVATION AND FUTURE ASPIRATIONS

KEYNOTES VIA ZOOM



IFS-Virtual Keynote Series

The Center for Research on Education and School Development (IFS) at the TU Dortmund University organizes the seventh IFS Virtual Keynote Series. This year's theme "Developing STEM Motivation and Future Aspirations" addresses current topics in the PHOENIX project (EXC 3112). Two keynotes will be held per date. A five-minute introduction is followed by the 45-minute keynotes. After each keynote will be 15 minutes time for moderated questions and answers.

11TH JANUARY

WHAT DO WE KNOW? EXPLAINING CAREER ASPIRATIONS AND DECISIONS IN STEM FROM PERSPECTIVES OF MOTIVATION AND IDENITY RESEARCH

3.00–4.15 pm (CET)
JACQUELYNNE ECCLES, University of California, Irvine, California, USA
Situated Expectancy-Value Theory: What Does Evidence Show

4.30-6.00 pm (CET)
ZAHRA HAZARI, Florida International University, Florida, USA
Broadening STEM and Disciplinary Identity Development to Expand STEM Career Aspirations

18TH JANUARY

WHAT CAN WE DO? PSYCHOLOGICAL INTERVENTIONS FOSTERING MOTIVATION, CAREER ASPIRATIONS AND DECISIONS IN STEM

3.00–4.15 pm (CET)
GREGORY WALTON, Stanford University, California, USA
How Wise Interventions Can Anticipate and Address Foundational Questions to Unleash Motivation in STEM: *Do I Belong? Can I Do It? Does It Matter?*

4.30-6.00 pm (CET)
EMILY ROSENZWEIG, Columbia University, New York, USA
New Directions and Unanswered Questions in Expectancy-Value Intervention Research for STEM Persistence

REGISTRATION INFORMATION

The conference is free of charge and you may register here: https://ifs.ep.tu-dortmund.de/en/ifs-virtual-keynote-series/.

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WHAT DO WE KNOW? EXPLAINING CAREER ASPIRATIONS AND DECISIONS IN STEM FROM PERSPECTIVES OF MOTIVATION AND IDENITY RESEARCH

JACQUELYNNE ECCLES (University of California, Irvine, California, USA)

Situated Expectancy-Value Theory: What Does Evidence Show

This talk will summarize the key points of SEVT and the evidence accumulated over the last 40 years to support or refute the predictions inherent in SEVT. The talk will focus on the contributions of SEVT to understanding students' interest in, or avoidance of, STEM coursework and occupational choices. Finally, this talk addresses some new methodological strategies that are improving our ability to evaluate the validity of some of the more complex proposed developmental sequences.

ZAHRA HAZARI (Florida International University, Florida, USA)

Broadening STEM and Disciplinary Identity Development to Expand STEM Career Aspirations

Although the number of STEM degrees and occupations are growing, narrow perceptions of STEM and disparities among marginalized groups continue to be pervasive and threaten the way in which STEM fields function and impact future outcomes globally. Considerable evidence points to the importance of STEM/disciplinary identity development as highly influential for youths' STEM career aspirations and persistence. Given that these discipline-specific identity constructs are culturally defined, they are malleable and can be broadened to reshape and expand STEM fields for a better global future. This keynote describes critical framing for studying STEM/disciplinary identities, as well as educational interventions that can support the broadening of these identity constructions such as counternarratives, counterspaces, and communal classroom cultures.

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WHAT CAN WE DO? PSYCHOLOGICAL INTERVENTIONS FOSTERING MOTIVATION, CAREER ASPIRATIONS AND DECISIONS IN STEM

GREGORY WALTON (Stanford University, California, USA)

How Wise Interventions Can Anticipate and Address Foundational Questions to Unleash Motivation in STEM: Do I Belong? Can I Do It? Does It Matter?

As young people look toward adulthood, they ask in many forms who they might become: What communities can they join? What skills do they have and can build? What matters to them and what impact would they like to have? This talk will review brief, psychologically "wise" interventions that anticipate the questions that come up on the path toward STEM fields and how these can be addressed to smooth this path.

EMILY ROSENZWEIG (Columbia University, New York, USA)

New Directions and Unanswered Questions in Expectancy-Value Intervention Research for STEM Persistence

The past decade has seen a number of promising intervention approaches that promote STEM achievement, course-taking, and major persistence by enhancing students' beliefs about competence or task value. Yet the field is also still developing foundational knowledge that informs our understanding of how best to intervene around these beliefs to enhance STEM persistence. In this talk, Emily Rosenzweig will discuss the "future" of value-focused motivational intervention research in STEM fields of study, providing both optimistic evidence of new directions that are enhancing this line of work and critiques of some foundational questions that must be addressed in order to develop this field further. By shedding light on successful - and mixed - past findings from her own value- and cost-focused intervention research, she will advance discussion of how to use expectancy-value based interventions to enhance STEM persistence in the future.