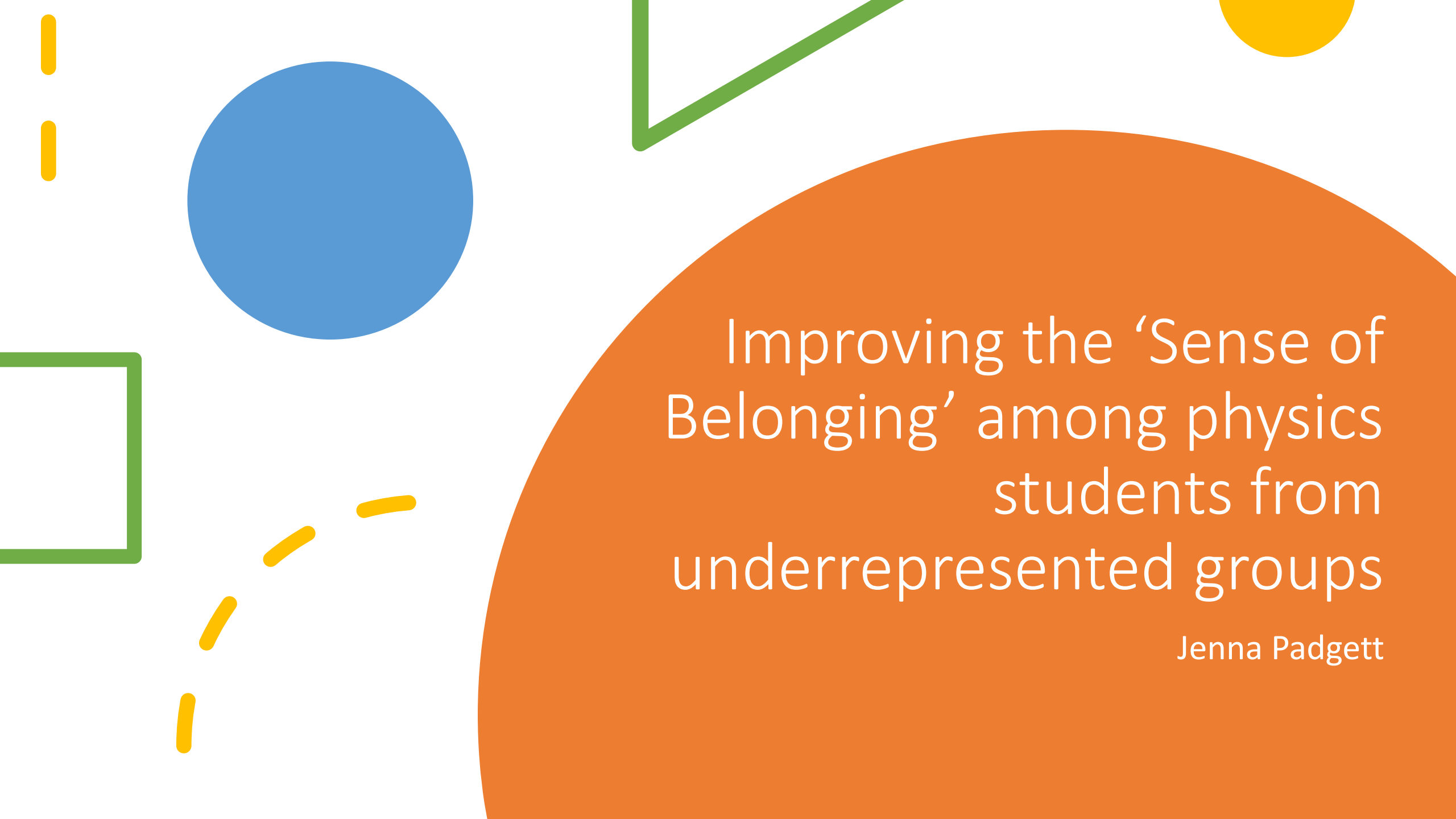




Improving the 'Sense of Belonging' among physics students from underrepresented groups

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Why is this important?

- Underrepresented students often face additional barriers to developing a strong sense of belonging compared to their overrepresented peers
- This negatively impacts academic performance, engagement and mental health
- 2018- 22.2% of physics undergraduates were women (UK) - and 1.7% of physics undergraduates were black women
- 2023 UCL- low-income background students leave STEM degrees at double the rate of more privileged students



Methodology of the Project

- Conducted literature review of existing research into barriers, solutions and the benefits of a diverse physics community
- Interviews with experts
- Interviews with current undergrads and recent graduates



Barriers to a Strong Sense of Belonging

- The belief that one must be a “natural genius” to succeed in university physics
- The “weed out” culture that exists in Higher Education physics
- The attitudes and behaviour of lecturers throughout their degree
- Underrepresented students experience microaggressions from peers during their studies
- Feelings of isolation



General Solutions to overcome barriers

- Greater emphasis on *Active Learning*
- Establishing Departmental Action Teams
- Building closer links between students and staff
- Hiring more diverse staff
- Greater promotion of mentoring schemes for underrepresented students



Benefits of Implementing these Solutions

- Helps build a more collaborative research culture
- Diversity generates research questions that have not been asked before
- Produces overall stronger scientific outputs
- Some of the benefits from a more inclusive research culture... we will not be aware of yet

What can Universities do?

- Introduce more *Active Learning* opportunities—sometimes followed directly by a non-academic, culturally inclusive social lunches or activities
- Ensure that lecturers are allotted the required time in workload models to help build stronger ties with the cohort
- Reevaluate departmental priorities when recruiting and promoting staff to also recognise EDI work, public engagement and acting as a role-model for underrepresented students
- Increase the number of research opportunities and placements for students from diverse backgrounds, with application processes focusing on potential contribution to the project and passion rather than course grades
- Listen to student voices

What can we all do?

- Get as involved as possible in DATs or EDI committees and raise sense of belonging type questions or ideas
- Hold departments to account on EDI goals
- Reach out to younger year groups to offer advice or share your experiences of lack of belonging
- Complete year surveys
- Talk about it!