Title: Olga Papadoulaki

Speakers: Olga Papadoulaki

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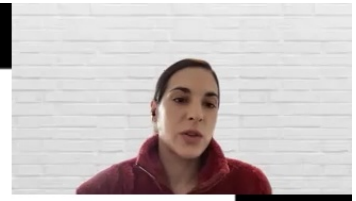
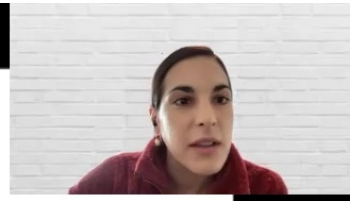


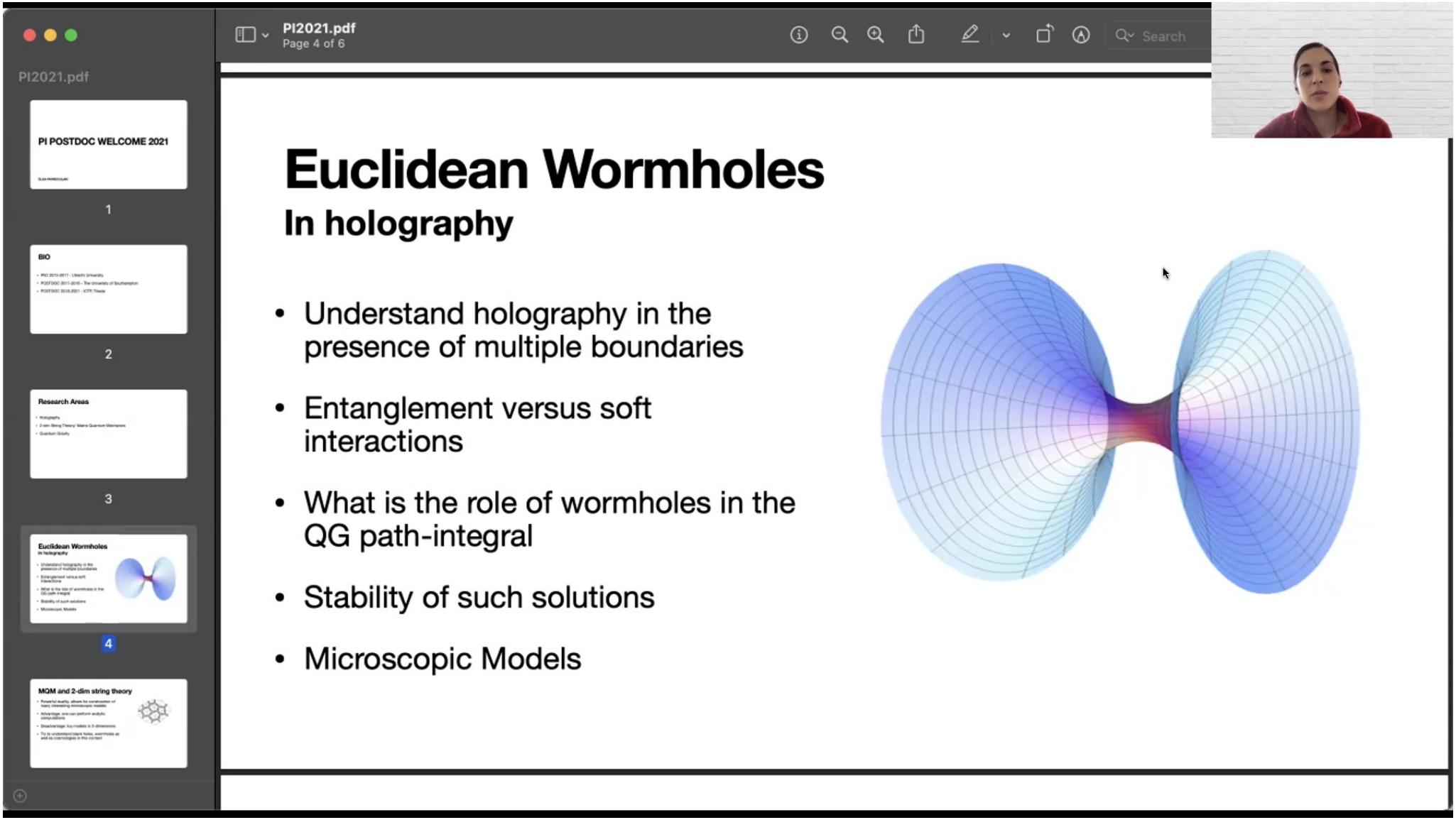
BIO

- PhD 2013-2017 - Utrecht University
- POSTDOC 2017-2018 - The University of Southampton
- POSTDOC 2018-2021 - ICTP, Trieste



Research Areas

- Holography
- 2-dim String Theory/ Matrix Quantum Mechanics
- Quantum Gravity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Euclidean Wormholes
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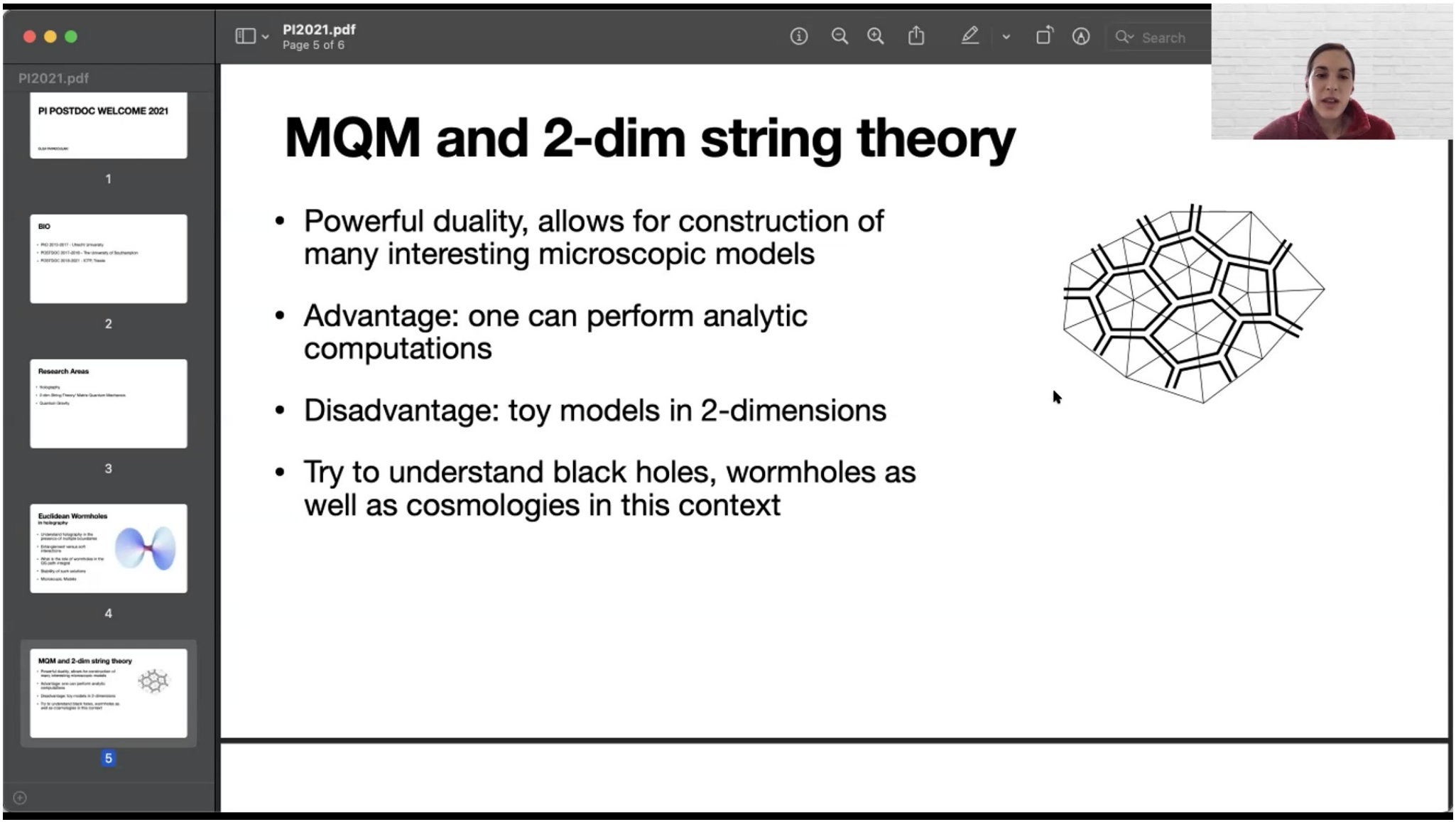
MQM and 2-dim string theory
Euclidean Wormholes
In holography
• Understand holography in the presence of multiple boundaries
• Entanglement versus soft interactions
• What is the role of wormholes in the QG path-integral
• Stability of such solutions
• Microscopic Models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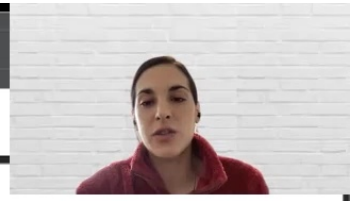
MQM and 2-dim string theory
• Powerful duality, allows for construction of many interesting microscopic models
• Advantage: one can perform analytic computations
• Disadvantage: toy models in 2-dimensions
• Try to understand black holes, wormholes as well as cosmologies in this context



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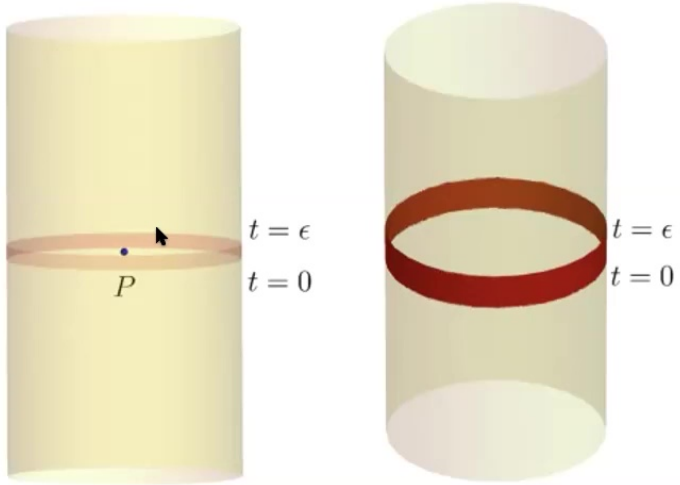
Information in QG

How gravity localizes information

- Exploit gravitational constraints, they are stronger than those in gauge theories
- Allow for detection of excitations in the centre of space time, from the boundary
- Leading to storage of information close to the boundary of space time
- Nature of quantum gravity is holographic
- Implication for resolution to the information paradox for black holes