

## Sixteenth Marcel Grossmann Meeting



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# Explaining Time's Passage

*Thursday 8 July 2021 19:10 (20 minutes)*

The way we experience time is in the accumulation of experiences and events that happen in the moment, and then are behind us. Since the time of Anaximander at least; philosophers have tried to explain both the nature of time and its origin or basis. In modern times; scientists are the ones exploring the domain of time, so now they attempt to explain the nature and basis of time –with varying degrees of success. This is complicated because explanations from Classical Physics or Relativity are different from, and incompatible with, answers from Quantum Mechanics, so we hope Quantum Gravity theories will help resolve this. Recent advances in Mathematics hold promise for a unified basis explaining both the thermodynamic and quantum-mechanical time arrows in a way that consistently informs our Philosophy. However; we may need to explore beyond the island of familiar Maths, to reconcile the divergent pictures of how and why time passes.

**Primary author:** DICKAU, Jonathan (Independent Researcher/Science Writer)

**Presenter:** DICKAU, Jonathan (Independent Researcher/Science Writer)

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