

Copernicus Webinar and Colloquium Series



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[Colloquium] Black Hole Information

Thursday, April 8, 2021 3:00 PM (1 hour)

Black hole information is one of the greatest puzzles of theoretical physics from the 20th century that has persisted into the 21st century. After Stephen Hawking discovered black hole evaporation in 1974, in 1976 he predicted that black hole formation and evaporation would cause a pure quantum state to change into a mixed state, effectively losing information from the universe. In 1979 I questioned this conclusion, as many years later did many others, and in 2004 Hawking conceded that black hole evaporation does not lose information. However, a minority of gravitational theorists have not accepted Hawking's concession. There do remain many puzzles about black hole information, such as how it gets out (if it indeed does), and whether there are firewalls at the surfaces of old black holes that would immediately destroy anything falling in.

Presenter: Prof. PAGE, Don (University of Alberta)