



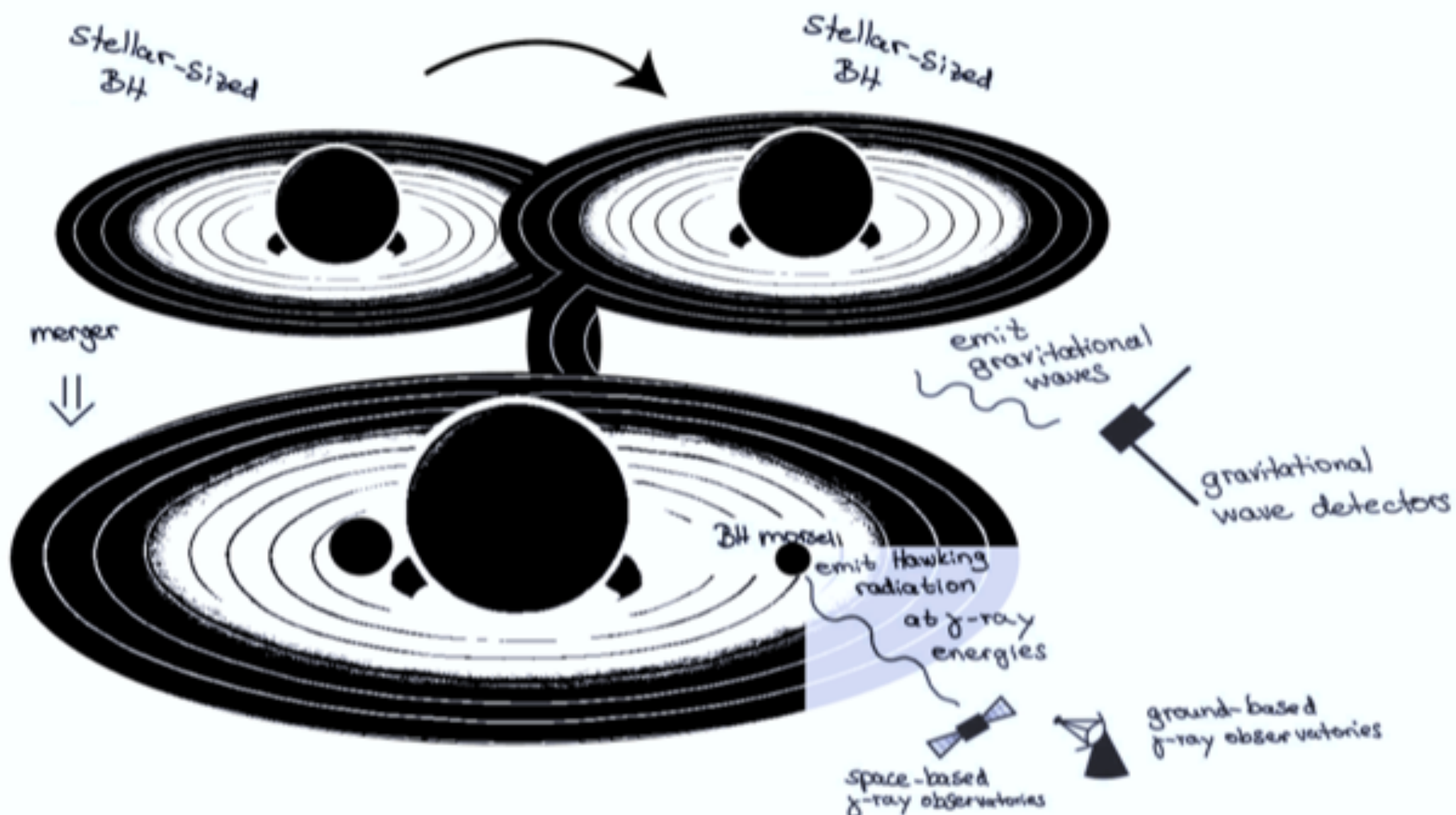
APC Colloquium

Wednesday, November 26 at 11am

Room Luc Valentin, 454A

Giacomo Cacciapaglia

LPTHE, Sorbonne Université & CNRS



TeV-scale new physics at colliders and shining from the dark: Hawking radiation from Black Hole mergers

The observation of Hawking radiation would be a first direct probe of the quantum nature of Black Holes. However, astrophysical Black Holes do not offer observable signals. What if Black Hole mergers observed via gravitational waves could eject evaporating Black Morsels? I will focus on the detectable signal stemming from the Morsels' Hawking radiation, which is already constrained by current gamma ray telescopes. The observable spectrum could contain information both about the mass distribution of the morsels, and on possible new physics around the TeV scale. I will hence discuss some promising signals that can be studied at the LHC and at the FCC-ee.