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School of
PHYSICS

‘DART: Successful Deflection of an Asteroid by a Kinetic Impactor’

Monday 24th April, 4pm, Mott Lecture Theatre

On September 26, 2022, the NASA Double Asteroid Redirection Test (DART) spacecraft successfully impacted Dimorphos, a 150 m diameter asteroid in orbit around its larger companion, Didymos, reducing the orbit period by 33 minutes (about 5%). This was the first demonstration of the use of a kinetic impactor to alter the orbit of a celestial body as a test of mitigation strategies for protecting Earth from impact. Results indicate that ejecta from the impact were an important contributor to the overall deflection. The follow-up ESA Hera spacecraft is scheduled to rendezvous with the Didymos system in early 2027 to further assess the DART result and fully characterize the asteroids. I will give an overview of the motivation for DART, provide highlights from the mission, and discuss some of the interesting dynamics that arose in preparation for the mission and in the aftermath of the impact.

The Colloquium will be followed by tea and coffee in the staff common room. For further details please contact phys-exec-office@bristol.ac.uk

**Physics Colloquium
Spring Term 2023**

