

JOB DESCRIPTION

Post-doctoral Research Associate to develop systems for Laser Driven Electron Streaking Vacancy Ref: 1034-24

Job Title: Post-doctoral Research Associate to develop systems for Laser Driven Electron Streaking	Present Grade: 6P
Department/College: Department of Physics	
Directly responsible to: Prof Steven Jamison	
Supervisory responsibility for: Co-supervision of PhD students	
Other contacts Project partners in Lancaster Engineering, Manchester physics and STFC Space Science departments. Academics, post-doctoral researchers and PhD students of the THz acceleration programme (including from Lancaster Engineering and Manchester Physics departments) Cockcroft Institute for particle accelerator science	
Major Duties: Provide experimental leadership in the design through to prototyping of optical and terahertz systems for few-hundred keV to 100's MeV electron streaking. Specific duties include <ul style="list-style-type: none"> • Lead the optical design for a system of THz generation in Lithium Niobate, mode conversion, and coupling to THz-frequency sub-mm structures. • Work closely with other post-doctoral and PhD researchers undertaking interaction structure design, and to take a coordinating role in the integration of those systems. • Oversee and specify the engineering and hardware integration for a prototype electron streaker system. • Undertake experimental development and testing in Lancaster and other laser laboratories. • Undertake experimental testing of the developed systems at external electron beam and laser facilities • Publish research results, and support the development of intellectual property such as patents. 	