

Project title: **Modelling the irradiation of biological molecules in the presence of solvents and metal nanoparticles**

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Description:

Applications are invited for a four-year PhD position in the School of Mathematics and Physics at Queen's University Belfast (QUB). The successful candidate will work as part of a research project that aims to model irradiation of biological molecules in the presence of solvents and metal nanoparticles (MNPs). Such irradiation processes occur over a wide range of time and length scales and so a range of theoretical and computational approaches are required that bridge these different regimes. The team involved in this work have developed a range of techniques to meet this requirement. The goal of this project is to integrate these techniques together into a unified approach. With this approach, the student will study irradiation of nucleobases and radiosensitiser molecules in the presence of solvents and MNPs.

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