Dark Energy mystery the focus of UQ galaxyer's study

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Astrophysics researchers at The University of Queensland have received a massive 220-night allocation from the Anglo-Australian Telescope (AAT) for a project to study Dark Energy.

The project will involve the largest-ever galaxy survey undertaken by telescope and will measure some 400,000 distant galaxies.

Project leader Associate Professor Michael Drinkwater said the technology at the AAT would allow the research to be undertaken in Australia, well ahead of any international competition.

“We will use the new AAOmega facility to survey galaxies in the distant universe and these measurements will enable us to test one of the major theories of Dark Energy," Dr Drinkwater said.

“Dark energy is a mysterious force which is causing the expansion of the universe to accelerate. Its nature is completely unknown and it may require new laws of physics to be written.”

Dr Drinkwater said the allocation was approved last week under the AAT's inaugural "large project" grants.

He said running costs for a single night on the AAT were valued at $20,000 and the allocation represented an investment of $4.4 million.

The galaxies for observation will be selected from ultra-violet data from

the Galaxy Evolution Explorer (GALEX) Satellite and additional observations by the Caltech partners are valued at $3 million.

Dr Drinkwater will work with fellow researchers Dr Kevin Pimbblet and Russell Jurek from UQ Physics. The project team also includes members from Swinburne University of Technology (co-leaders), UNSW, the Anglo-Australian Observatory, Caltech, Johns Hopkins and UBC.

Source: University of Queensland