Public Lecture: Mikkel Andersen

Controlling individual atoms using lasers





Location: Sir Neil Waters Building, Massey University (Albany campus)

Cost: Free

The public are invited to a special talk in connection with the New Zealand Institute of Physics who are holding their biennial conference at Massey University (Albany Campus) in the first week of July 2023.

Mikkel Anderson (University of Otago) will speak on "Controlling individual atoms using lasers."

Scientists strive to develop techniques to build ever smaller structures. Modern computers and other electronic devices are a direct outcome of this effort, as their performance is facilitated by their micro-chips having feature sizes as small as few nanometers. The ultimate limit of small scale engineering is to build devices using individual atoms. This talk reveals how we have developed techniques to isolate and control individual atoms using laser beams, down at the University of Otago, here in New Zealand.

We will see how we can build individual molecules atom by atom, and how we generate the invisible bond known as quantum entanglement between two atoms.

Mikkel has 20 years experience with research in atomic physics focused on laser manipulation of atoms. His interests range from understanding the intricate workings of the microscopic world to applying this knowledge to develop new quantum technologies.



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