

CONDENSED MATTER SPECIAL SEMINAR

Friday 19 May at 11:00
Simpkins Lee room

“Vacuum deposition for Perovskite-Silicon Tandem Solar cells”

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Metal halide perovskites are a highly promising and versatile class of semiconductor materials. They can be used to fabricate solar cells both on their own and in combination with silicon. When combined with silicon into tandem solar cells, efficiencies beyond the theoretical limit of silicon can be achieved. The necessary perovskite thin films can be made with a variety of methods among which vacuum based coating techniques stand out as highly promising routes from lab scale towards industrial scales. Huge progress has been made on the lab scale with perovskite based solar cells reaching record efficiencies. Now this progress needs to be translated to deposition methods that are suitable for large scale solar cell production. In this talk I will introduce the current research on perovskite silicon tandems and discuss potential routes towards industrial scales.

Host: Prof Michael Johnston