

## **Applications of NISQ devices to orbital collision detection**

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Abstract:

In this talk we discuss the potential and limitations of NISQ devices for orbital collision detection tasks. Specifically, we present an approach to the problem based on variational quantum circuits, together with preliminary small-scale experimental results based on the recent ESA collision avoidance challenge and run on IBMQ machines. We also discuss a plausible timeline for the applicability of NISQ technology to real-world tasks.