



## QUANTOP and AMO physics seminar

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**Speaker:** Brana Jelenkovic

**Title:** Quantum information processing with trapped ions at NIST

**Time:** Wednesday April 9, 15:00

**Place:** PHYS. AUD.

### **Abstract:**

We have demonstrated a technique for generation of arbitrary states of two-level  ${}^9\text{Be}^+$  ion trapped in a linear Paul trap. Also, the experimental demonstration of a controlled-NOT quantum logic gate will be presented. The gate is between motional and internal states qubits of a single ion. Finally, we have investigated ion dynamics associated with a dual trap linear trap where ions can be stored in and moved between two distinct locations.

Coffee/tea and cake will be served from 15:00.

Lars H. Andersen