

# Atomic Scale Physics group

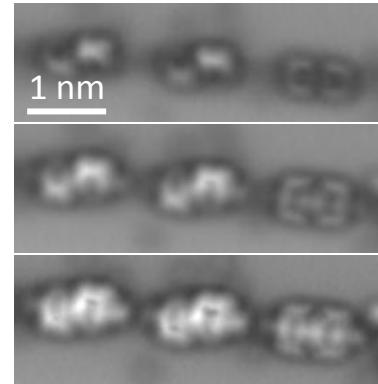
# Summer Student Positions

We are looking for motivated students to work with us on the following experimental projects:

## 1. Atomic resolution AFM imaging of molecules

This project involves developing methods to measure the atomic structure of molecules using atomic force microscopy (AFM)

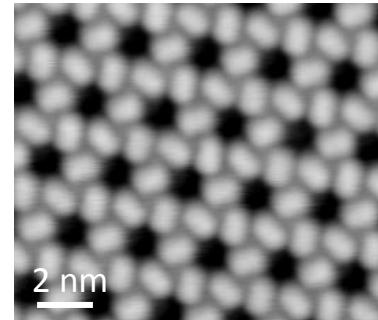
### Project 1



## 2. Formation of metal-organic frameworks with heavy metal atoms

This project involves fabricating ordered arrays of metal atoms cross-linked by organic molecules and studying their electronic properties using scanning tunneling microscopy (STM)

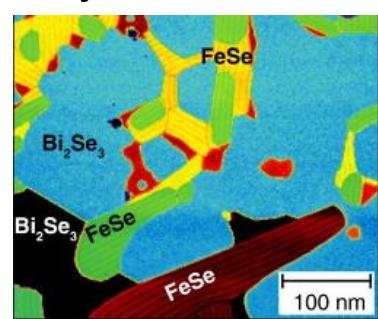
### Project 2



## 3. Growth of $\text{VSe}_2$ on $\text{Bi}_2\text{Se}_3$ for magnetic topological insulators

This project involves investigating the growth of 2D monolayer magnet  $\text{VSe}_2$  on a topological insulator ( $\text{Bi}_2\text{Se}_3$ ) substrate. This type of growth has been demonstrated for  $\text{FeSe}$  and we will test if the process can be extended to other metals

### Project 3



All projects involve operation of ultra-high vacuum sample growth and characterization facilities. They are carried out as a part of a team and can constitute a bachelor's thesis, a special assignment, or master's thesis. For more details, contact Peter Liljeroth ([peter.liljeroth@aalto.fi](mailto:peter.liljeroth@aalto.fi))

For more info on the group and the latest news:

<http://physics.aalto.fi/en/groups/stm/>

