

**CoE EQUITANT Seminar**  
**Monday, 27.02.2017 at 15.00**

**The algebraic way to molecular structure**  
**LECTURE (aimed at postgrad students)**

**Duration: 45-60 min**

**Prof. Lorenzo Fortunato**  
**University of Padova, Italy**

This lecture aims at summarizing a few useful aspects of Lie algebras and group theory that are essential in quantum mechanics in general, with applications to molecular physics. In particular, we will discuss:

- angular momentum
- rigid rotor (Carbon oxide)
- U(4) vibron model for diatomic molecules (hydrogen molecule)

Centre of Excellence “Emerging orders in quantum and nanomaterials”  
(EQUITANT) is financed by the European Regional Development Fund



Euroopa Liit  
Euroopa  
Regionaalarengu Fond



Eesti  
tuleviku heaks