



Contribution ID: 137

Type: **Workshop**

## **Different Techniques of Force-field Derivation and Setting Up Molecular Dynamics (MD) Calculations at CHPC Using DL\_POLY Code**

*Sunday, 1 December 2024 09:00 (1h 30m)*

Molecular dynamics (MD) is a computer simulation method for studying the physical movements of atoms and molecules. The MD method can assist one in obtaining the static quantities and dynamic quantities. This method gives a route to dynamical properties of the system: transport coefficients, time-dependent responses to perturbations, rheological properties and spectra. The atoms and molecules are allowed to interact for a fixed period of time, giving a view of the dynamic evolution of the system. The DL\_POLY Code parallel molecular dynamics simulation package will be utilised for exploration of such properties of molecular systems.

**Student or Postdoc?**

**Email address**

**Co-Authors**

**CHPC User**

**CHPC Research Programme**

**Workshop Duration**

Half-day

**Primary authors:** MASEDI, Clifton (University of Limpopo); KGATWANE, Kenneth (University of Limpopo); Dr PHAAHLA, Tshegofatso (Materials Modelling Centre); HLUNGWANI, Donald (University of Limpopo)

**Presenter:** MASEDI, Clifton (University of Limpopo)

**Session Classification:** Workshop

**Track Classification:** Materials Science