

DESCRIPTION

The Interoperable Material-to-Device (IM2D) platform is an Integrated, standardized, interoperable software platform conceived for the direct and easy exploitation by industrial users to accelerate the development of emerging electronic devices such as FeFET, memristors.

It is based on a multi-physics and multiscale approach with focus on novel, complex, "real life" materials in the specific device configuration.

It conjugates the advantages of material and device-driven software, connecting the properties of materials at the atomistic level to the electrical behavior of devices.

FRAMEWORK

IM2D supports two main research operation modes:

- Material-to-Device (M2D): optimization of device-design capabilities by understanding and predicting the device performance starting from the material properties and fabrication process effects
- Device-to-Material (D2M): optimization of material-design capabilities by exploring new materials and new compounds, starting from the desired electrical performances of the device

