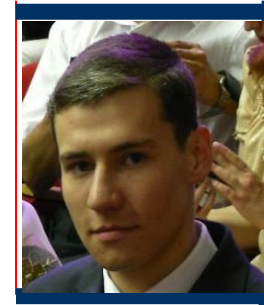
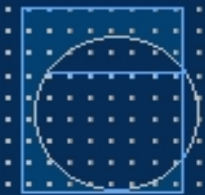


Luis Marques, PhD
Teaching Staff



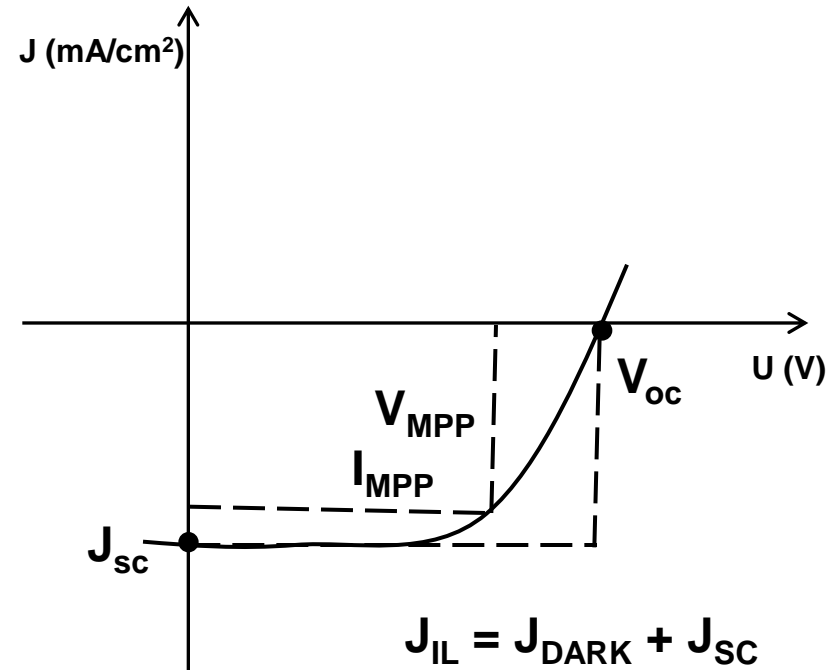
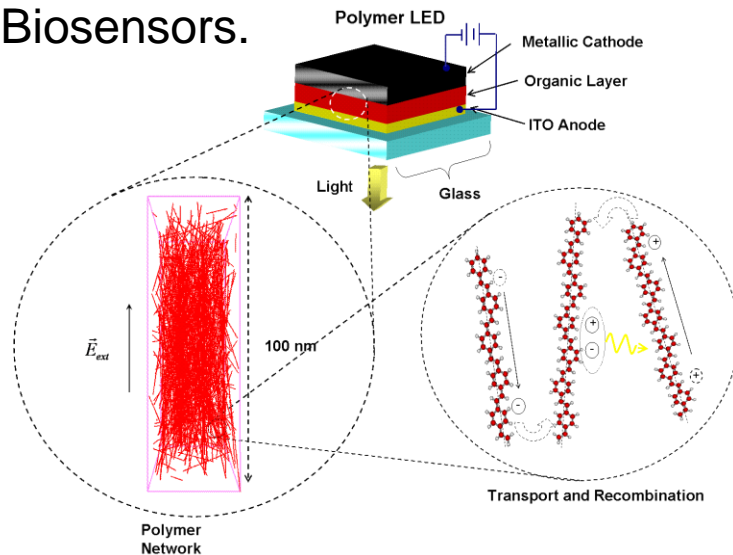
Sergey Pyrlin
PhD Student

We use advanced multiscale modelling and simulation techniques to study organic, inorganic and biological material properties and processes at different length scales to improve the performance of existing materials and processing techniques, and help in the design of new materials/devices for technological applications.

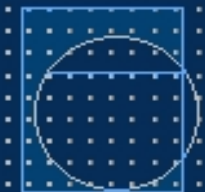


Multiscale modelling polymeric optoelectronic devices

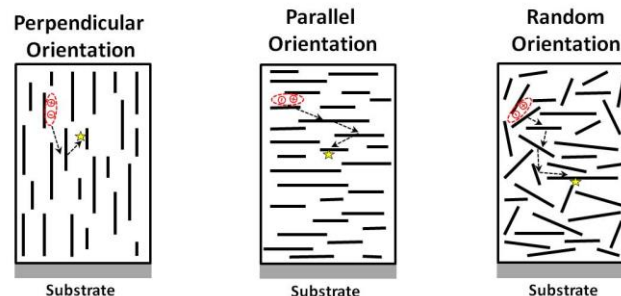
Modelling at nanometric and atomistic scales of fundamental processes involved in polymer light emitting diodes, Organic solar cells, Organic radical batteries, Biosensors.



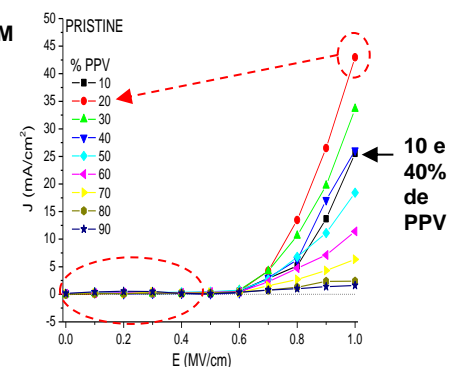
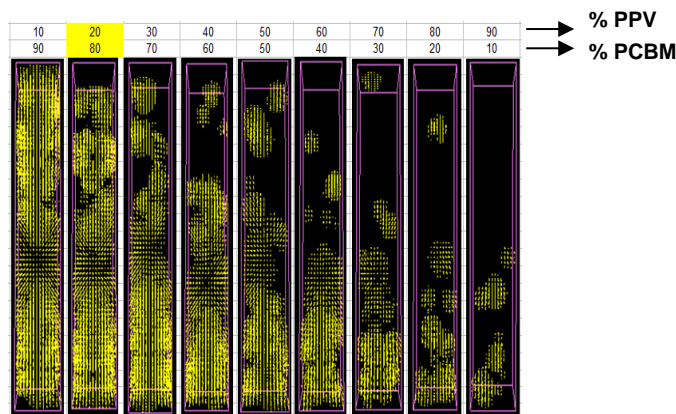
$$FF(\%) = \frac{V_{MPP} \times I_{MPP}}{V_{OC} \times I_{SC}} \times 100\%$$



Effect of morphology?

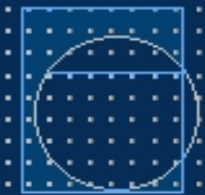


Effect of composition?



Effect of interface nanostructure?





Multiscale modelling CNT-polymer composites

(CONTACT - ITN Network – FP7)

