PRESENTED BY THE DEPARTMENT OF PHYSICS & COMPUTER SCIENCE AT WILFRID LAURIER UNIVERSITY

## **Mathematical**

## tracing of protein misfolding

The classification of various autoimmune diseases according to the misfolding of specific proteins is following the existing proof of their connection. Yet, the misfolding is not being modeled according to geometry but according to the problems arised by the energy flows. The proteins can be unfolded with a parallel production and measurement of approximately 80.000 energy steady states and could be compared with unfolded well operating proteins. The definition of a much smaller length of a protein which may contain the misfolding is crucial for transforming research-oriented patterns to diagnostic tools. Creating new isomorphic representations of the mathematical modeling of the energy form of proteins can provide us with matching criteria for the tracing of protein misfolding in much smaller scales.





## **Professor Takis Vlamos**

Ionian University, Greece Director, BiHELab, Bioinformatics and Human Electrophysiology Lab http://bihelab.di.ionio.gr/



## WILFRID LAURIER UNIVERSITY

WATERLOO | Brantford | Kitchener | Toronto