

Virtual Reality as a Research Tool

Erick Moen

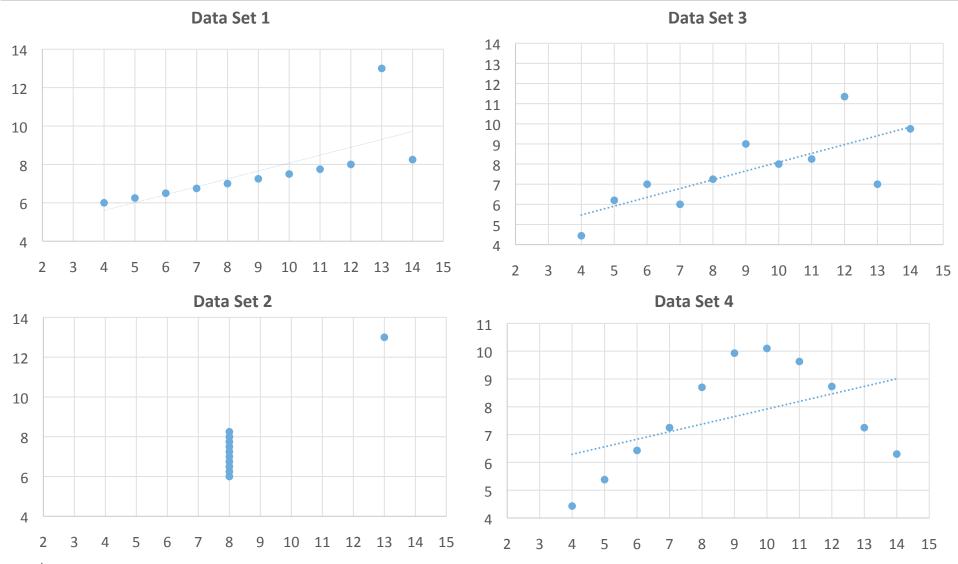
October 2, 2015





Data Visualization Using Virtual Reality



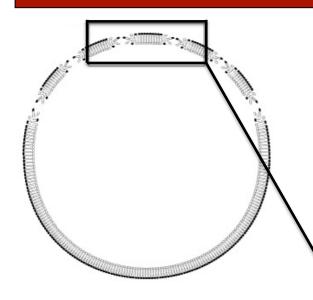




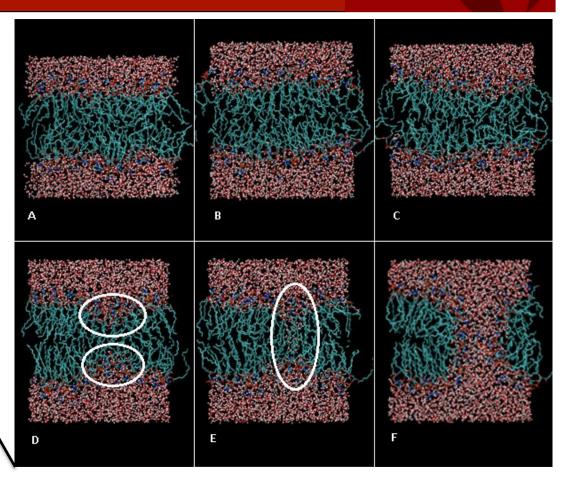


High Performance Computing





 Molecular dynamic simulations provide a window into the development of aqueous nanopores in membranes



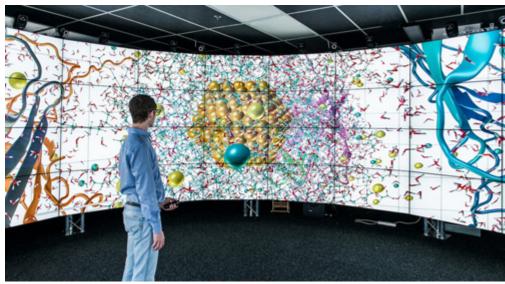
- 20096 particles lipid model with a 25ns time scale and a time step of 0.002ps.
- Walltime=336:00:00 on 1 node with 4 processors.





Advancing Research Through VR

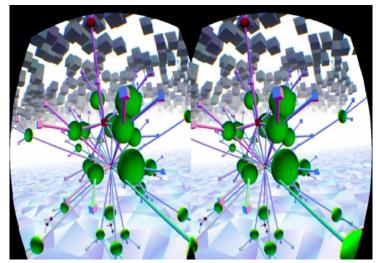








3D Visualization room, Cave2, built at UIC



Representation of Semantic Web with Rift Erich Bremer

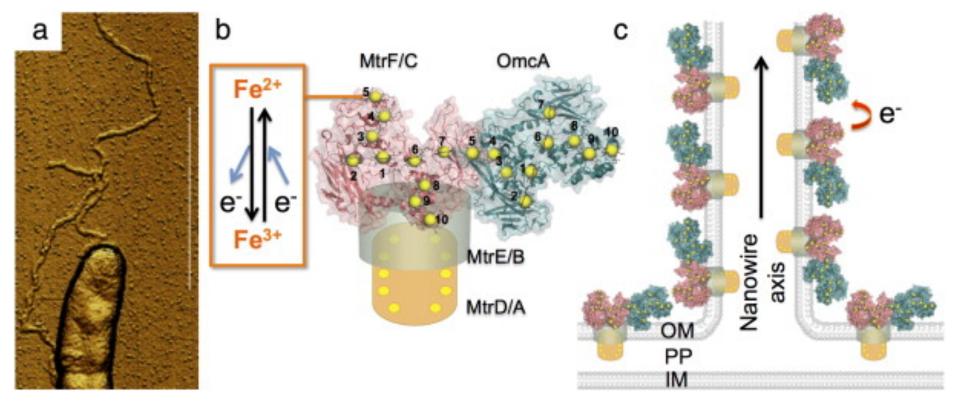




Electron Transfer Simulations



How bacteria breathe



M. Nakano, et al. Com. Phys. Comm. 2015

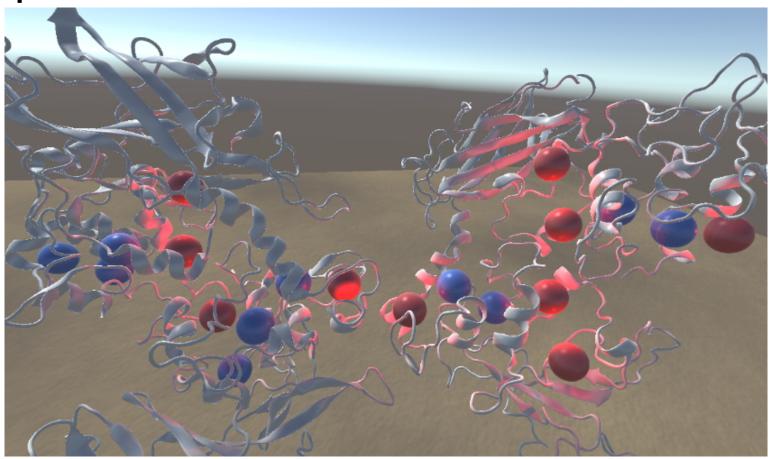




Electron Transfer Simulations



 Building partnerships across EE, CS, Physics and Cinema Departments



M. Nakano, E. Moen et al. (Submitted)

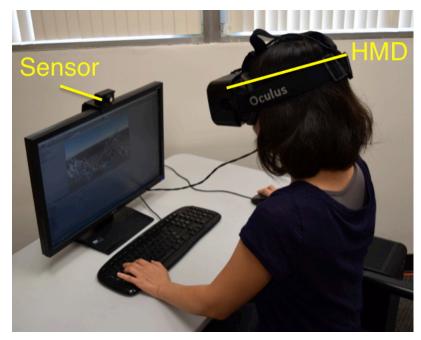




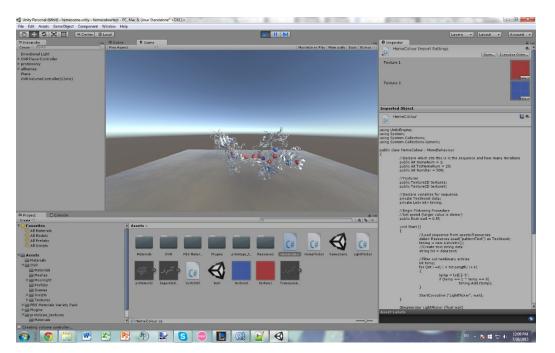
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Looking Ahead: Interfaces



