

Geometry as a key to the virosphere – from viral infections to virus nanotechnology

Reidun Twarock

The geometric principles underpinning virus structure provide a key to understanding the mechanisms by which viruses replicate and infect their hosts. Using novel geometric and topological descriptors of virus architecture in combination with stochastic simulations, I will demonstrate how viral geometry impacts on function at different stages of a viral life cycle. These results reveal novel opportunities for applications in antiviral therapy and virus nanotechnology.