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**The dynamic behaviour of viral capsids under structural
transitions important for infection**

We present a general method for the investigation and prediction of likely transition mechanisms for capsids of icosahedral viruses. Concepts from the theory of three-dimensional (3D) quasicrystals, and from the theory of structural phase transformations in 3D crystalline solids, are combined to give a framework for the study of these structural transformations. Applications to a number of viruses will be discussed.