

**Title:** Vietoris–Rips complexes of hypercube graphs

**Abstract:** For a metric space  $(X, d)$  and a scale parameter  $r \geq 0$ , the Vietoris-Rips complex is a simplicial complex on vertex set  $X$ , where a finite set  $\sigma \subseteq X$  is a simplex if and only if diameter of  $\sigma$  is at most  $r$ . The topology of Vietoris-Rips complexes has connection with several areas including combinatorial topology, geometric topology, data analysis, etc. In this talk, we discuss the Vietoris-Rips complexes of hypercube graphs.