



Mathematics and CS Seminar

GeomTop Seminar: Colin de Verdiere parameter and representations of graphs

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The Colin de Verdiere parameter $\nu(G)$ is known to capture some of the embeddability properties of a graph G : For instance, $\nu(G) \leq 3$ if and only if G is planar and $\nu(G) \leq 4$ if and only if G is linkless embeddable. In order to study topological properties of graphs G with $\nu(G) > 4$, van der Holst and Pendavingh introduced a parameter $\mu(G)$. They showed that $\mu(G) \leq k$ if and only if $\nu(G) \leq k$ for $k = 1, 2, 3, 4$. In addition, they proved that $\mu(G) \leq \nu(G) + 2$ for every G and conjectured that $\mu(G) = \nu(G)$ in general. They also showed that the two parameters may differ. In this talk, after an introduction on the parameters ν and μ , I plan to present a proof of the aforementioned conjecture of van der Holst and Pendavingh. This is a joint work with Martin Tancer.

Wednesday, December 11, 2019 01:00pm - 02:15pm

Mondi Seminar Room 3, Central Building



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