VCU Discrete Mathematics Seminar

Nowhere-zero 3-flow
and Sign-circuit covering

Prof Dong Ye
(MTSU)

Wednesday, Oct. 19
1:00-1:50 EST

Live in 4145 Harris Hall

& Zoom @ `https://vcu.zoom.us/j/92975799914`
`password=graphs2357`

In 1950s, Tutte established the flow and coloring duality for graphs on orientable surface, and the connections between the integer flows and circuit covering. A classic result of Tutte states that a graph with a nowhere-zero 3-flow has a circuit cover which covers every edge at most twice, and hence has a shortest circuit cover with length at most 4/3 of the total number of edges. In this talk, we focus on nowhere-zero 3-flows and circuit covers of signed graphs, extending Tutte's result from graph to signed graphs.

This is based on joint work with Jiaao Li and Yezhou Wu.

For the DM seminar schedule, see:

`https://vcumath.github.io/Seminar/dms.html`