Graph Coloring

Organizer(s):
Douglas B. West (University of Illinois)

Description:
Graph coloring is a fundamental model for problems of optimally partitioning a set into subsets that avoid conflicts. This minisymposium samples a wide variety of problems in this area. The first session studies optimal coloring of the vertices or edges of graphs in various families, using various labels and satisfying various constraints. The second session explores connections with other topics, including eigenvalues, topology, general graph properties, and induced forests.

Titles and Speakers:

- *Edge-colourings of multigraphs*
  <u>Michael Stiebitz</u> (Technical University Ilmenau), Diego Scheide (Technical University Ilmenau)

- *Circular edge-coloring of cartesian products*
  <u>Douglas B. West</u> (University of Illinois), Xuding Zhu (National Sun Yat-Sen University)

- *Edge-coloring of cubic graphs with elements of Steiner triple systems*
  <u>Daniel Král</u> (Charles University), E. Máčajová (Comenius University), A. Pór (Charles University), J.-S. Sereni (Charles University)

- *Injective colouring of graphs*
  André Raspaud (LaBRI, Université Bordeaux I)

- *Equitable coloring: New proofs, theorems, and conjectures*
  <u>Hal Kierstead</u> (Arizona State University), Alexandr V. Kostochka (University of Illinois)

- *Laplacian eigenvalues and chromatic number*
  Vladimir Nikiforov (University of Memphis)

- *Chromatic invariants and Borsuk-Ulam-type theorems*
  <u>Gábor Simonyi</u> (Rényi Institute, Hungarian Academy of Sciences), Gábor Tardos, (Simon Fraser University and Rényi Institute, Hungarian Academy of Sciences)

- *Local chromatic number of odd quadrangulations*
  Bojan Mohar (Simon Fraser University), Gábor Simonyi (Rényi Institute, Hungarian Academy of Sciences), <u>Gábor Tardos</u>, (Simon Fraser University and Rényi Institute, Hungarian Academy of Sciences)

- *Generalized coloring and uniquely colorable graphs*
  Peter Mihók (Mathematical Institute, Slovak Academy of Science)

- *On two conjectures about induced forests in planar graphs*
  Mohammad R. Salavatipour (University of Alberta - Edmonton)