



istanbul matematiksel bilimler merkezi
istanbul center for mathematical sciences

WORKSHOP ON GRAPH THEORY AND ITS APPLICATIONS - VIII

Date : November 9-10, 2018

Place: IMBM Seminar Room, Boğaziçi University South Campus

Participation is free, please register on our web page:

<http://bilmuh.gtu.edu.tr/~dgozupek/wgt2018/>

PROGRAM

November 9, 2018, Friday

10.00-12.15 (with a coffee break): Invited lecture: Roman Domination in Graphs

Joanna Raczek (Gdansk University of Technology, Poland)

Abstract:

A *Roman dominating function* on a graph $G = (V, E)$ is defined to be a function $f: V \rightarrow \{0, 1, 2\}$ satisfying the condition that every vertex u for which $f(u) = 0$ is adjacent to at least one vertex v for which $f(v) = 2$. The weight of a Roman dominating function f is the value $f(V) = \sum_{u \in V} f(u)$. The minimum weight of a Roman dominating function on a graph G is called the *Roman domination number* of G . In this talk, I will present results on Roman domination and its variants in some classes of graphs. This talk will also feature future possible ways of continuing the study of these parameters.

14.00-17.00: Contributed talks

November 10, 2018, Saturday

10.00-12.15 (with a coffee break): Invited lecture: On Domination Subdivision Number of Trees

Magda Dettlaff (Gdansk University of Technology, Poland)

Abstract:

Let $G = (V(G), E(G))$ be a graph. A subset D of $V(G)$ is said to be dominating in G if every vertex belonging to $V(G) - D$ has at least one neighbor in D . The cardinality of a smallest dominating set in G , denoted by $\gamma(G)$, is called the domination number of G . The domination subdivision number, $sd(G)$, of a graph G is the minimum number of edges which must be subdivided (where each edge can be subdivided at most once) in order to increase the domination number. The domination subdivision number of a tree is either 1, 2 or 3. In this talk I focus on different kind of characterizations of trees with the domination subdivision number equal to 3.

14.00-17.00: Contributed talks