

## Hosoya Polynomials of Zero-Divisor Graphs

**Authors :** Abdul Jalil M. Khalaf, Esraa M. Kadhim

**Abstract :** The Hosoya polynomial of a graph  $G$  is a graphical invariant polynomial that its first derivative at  $x=1$  is equal to the Wiener index and second derivative at  $x=1$  is equal to the Hyper-Wiener index. In this paper we study the Hosoya polynomial of zero-divisor graphs.

**Keywords :** Hosoya polynomial, wiener index, Hyper-Wiener index, zero-divisor graphs

**Conference Title :** ICM 2015 : International Conference on Mathematics

**Conference Location :** Paris, France

**Conference Dates :** March 30-31, 2015