

The Borel chromatic number of a graph on a Polish space is the least number of colors needed to color its vertices by a Borel function. Kechris-Solecki-Todorcevic (1999) proved that the Borel chromatic number of a graph generated by a function is 1, 2, 3 or ω . I will give a prove of it and I'm going to talk about open questions in this area.