A not necessarily proper edge-coloring on a graph yields a color palette \( c(v) = \{a_i \ldots, a_k\} \) for each vertex \( v \) where \( a_i \) is the number of edges incident to \( v \) with color \( i \). We reorder \( c(v) \) for every \( v \) in non-increasing order to obtain the \textit{color-blind partition} \( c^*(v) \). When the color-blind partition forms a proper vertex labeling, we say that the edge-coloring is \textit{color-blind distinguishing}, and we let \( \text{dal}(G) \) be the smallest number of colors necessary for a color-blind distinguishing edge-coloring.

In this talk, we examine the problem of determining \( \text{dal}(G) \) for graphs of low degree, and show its connection with computational complexity theory and hypergraph coloring. We show that, for general graphs, determining \( \text{dal}(G) \) is NP-complete even when it is known that \( \text{dal}(G) \in \{2, 3\} \). However, we can use known results from hypergraph coloring to deal with regular bipartite graphs. (Received September 20, 2016)