## **Abstract**

This paper presents a multiple target tracking method that uses the Dezert-Smarandache Theory (DSmT) for data association. A detailed framework is developed to show how the DSmT can be used to associate measurements with the corresponding correct targets. We will discuss the choices of the tracking hypotheses in the DSmT and we will demonstrate the effectiveness of the developed approach on simulated and real tracking scenarios that uses color and infrared cues