

In multiple target tracking (MTT) it becomes necessary to use a multihypothesis approach if the trajectories of two or more targets cross. However, multihypothesis approaches, e.g., the multiple hypothesis tracker (MHT) or the emerging generalized labelled multi-Bernoulli (GLMB) filter, are computationally demanding. In this paper, we propose a simple multi-Bernoulli (MB) filter and a post processing method, which together deliver a multihypothesis tracking estimate at a computational cost that is only slightly larger than the cost of a single-hypothesis tracking filter even for many targets. The proposed MB filter is shown to be similar to the labeled MB filter, itself an approximation of the multihypothesis GLMB filter. In a simulation study with multiple targets and several trajectory crossings, the proposed filter is shown to be capable of correctly estimating the multihypothesis output. The filter is also tasked with presenting to an operator a principled perspective on a scene with many feasible track switches.