

## A novel hypothesis splitting method implementation for multi-hypothesis filters - DTU Orbit (09/11/2017)

### A novel hypothesis splitting method implementation for multi-hypothesis filters

The paper presents a multi-hypothesis filter library featuring a novel method for splitting Gaussians into ones with smaller variances. The library is written in C++ for high performance and the source code is open and free<sup>1</sup>. The multi-hypothesis filters commonly approximate the distribution transformations better, if the covariances of the individual hypotheses are sufficiently small. We propose a look-up table based method to calculate a set of Gaussian hypotheses approximating a wider Gaussian in order to improve the filter approximation. Python bindings for the library are also provided for fast prototyping.

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Authors: Bayramoglu, E. (Intern), Ravn, O. (Intern), Andersen, N. A. (Intern)

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