



Ashok Kumar M.
Ph.D. IISc Bangalore
Assistant Professor, Mathematics
ashokm@iitpkd.ac.in, 04923-226371
<http://www.iitpkd.ac.in/people/ashokm>



Research Interests:

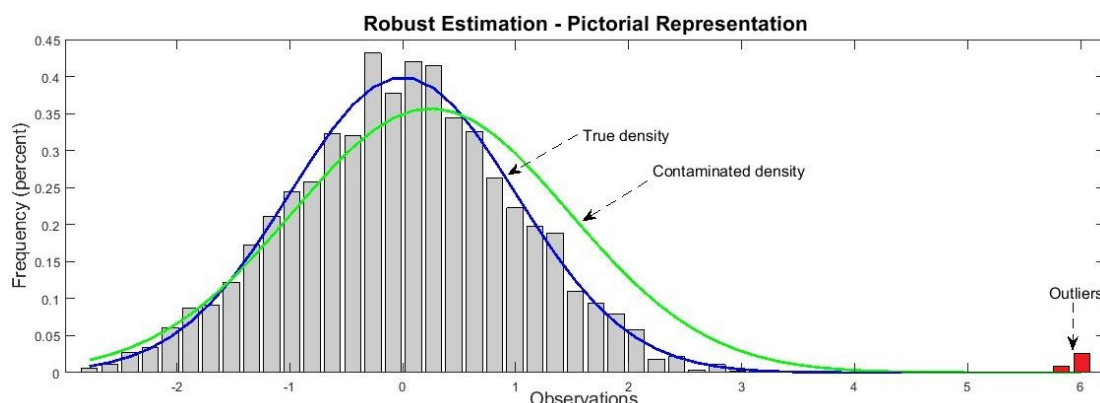
Information theory, statistics and probability

Brief Summary of Research:

Information theory: We study information measures and their role in physical problems such as guessing a random variable, source coding, tasks partitioning, and so on.

Statistics: We study robust inference problems via minimum distance methods. We study the geometry of the associated statistical models and apply them to solve the underlying estimation problems.

Probability: We study large deviation problems via information projections.



Projects:

- VAJRA scheme of the SERB jointly with Prof Michel Broniatowski of the Université Pierre et Marie Curie, Paris, France on the title “Unified Theory for Projection Theorems, Large Deviations, and Statistics in Connection with Divergence Functions”.

Recent Publications:

1. M. Broniatowski, J. Jurečková, M. Ashok Kumar, E. Miranda, “Composite Tests Under Corrupted Data”, *Entropy* 21 (1) (63), 1-23, January 2019.
2. M. Ashok Kumar and K. V. Mishra, “Information Geometric Approach to Bayesian Lower Error Bounds”, 2018 IEEE International Symposium on Information Theory (ISIT 2018), held at Colorado, USA during 17 - 22 June 2018