

# Combining Information Sources Using Minimum Cross-Entropy Principle

Vladimíra Sečkárová<sup>12</sup>

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<sup>1</sup> Department of Adaptive Systems, Institute of Information Theory and Automation of the ASCR, Prague, Czech Republic  
seckarov@utia.cas.cz

<sup>2</sup> Department of Probability and Mathematical Statistics, Faculty of Mathematics and Physics, Charles University in Prague, Czech Republic

## Abstract

Combining information sources, exploited in many areas of mathematics, has been an open problem for decades. It was approached from many point of views and different methods for assignment of the weights to the sources were developed. Some of them prefer subjective influence. Sometimes a reduction of the space of sources is used. We propose a method based on tools of information theory, i.e. the minimum cross-entropy principle and the Kullback-Leibler divergence. These help us eliminate the problem of subjectivity and allow us to compute the weight for each considered source.