IEEE ICCV 2015 Tutorial

Removing Camera Blur: Tricks of the Trade, Insights and Applications

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This tutorial aims at introducing motion deblurring to beginning graduate students and engineers in industry. The main objective is to illustrate how the blur removal problem can be cast, what has been achieved so far, what we really know about blind deconvolution, and what the next challenges are. Overall we envision that investigation of these topics can lead to enhancements, extensions, and more transparent deployment of Bayesian-inspired algorithms both for blind deblurring problems and beyond. Also, the underlying insights carry over to a wide variety of bilinear models common in the computer vision literature such as independent component analysis, dictionary learning/sparse coding, and non-negative matrix factorization, just to name a few.