

# **A Fast Total Variation Minimization Method for Image Restoration**

Michael Ng

Department of Mathematics, Hong Kong Baptist University, Kowloon Tong, Hong Kong

Corresponding Author : Michael Ng, [mng@math.hkbu.edu.hk](mailto:mng@math.hkbu.edu.hk)

## **ABSTRACT**

In this talk, we study a fast total variation minimization method for image restoration. In the proposed method, we use the modified total variation minimization scheme to denoise the de-blurred image. An alternating minimization algorithm is employed to solve the proposed total variation minimization problem. Our experimental results show that the quality of restored images by the proposed method is competitive with those restored by the existing total variation restoration methods. We show the convergence of the alternating minimization algorithm and demonstrate that the algorithm is very efficient.