Analytical aspects of spatially adapted total variation regularisation

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Spatially adapted regularisation in image reconstruction has been used in order to preserve details like texture and other highly oscillating features that are naturally present in the image. The idea is to apply regularisation of different strength in different parts of the image by spatially varying the regularisation parameters. In this talk, we will study analytically the effect of the spatially varying parameters to the structure of solutions of total variation regularisation.