Centre Vortices in SU(3)

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Centre vortices have been shown to account for the full string tension in SU(2), giving weight to the vortex picture of confinement. In SU(3), the vortices fail to recover the string tension to its full extent. A close relationship between maximal centre gauge vortices and confinement still exists however, since removing the vortices yields a model theory with vanishing string tension. We explore the use of smearing algorithms as preconditioning techniques for maximal centre gauge fixing, with visualisations of the determined vortex matter from the original configurations. We also investigate the spectrum of the vortex-removed model theory.