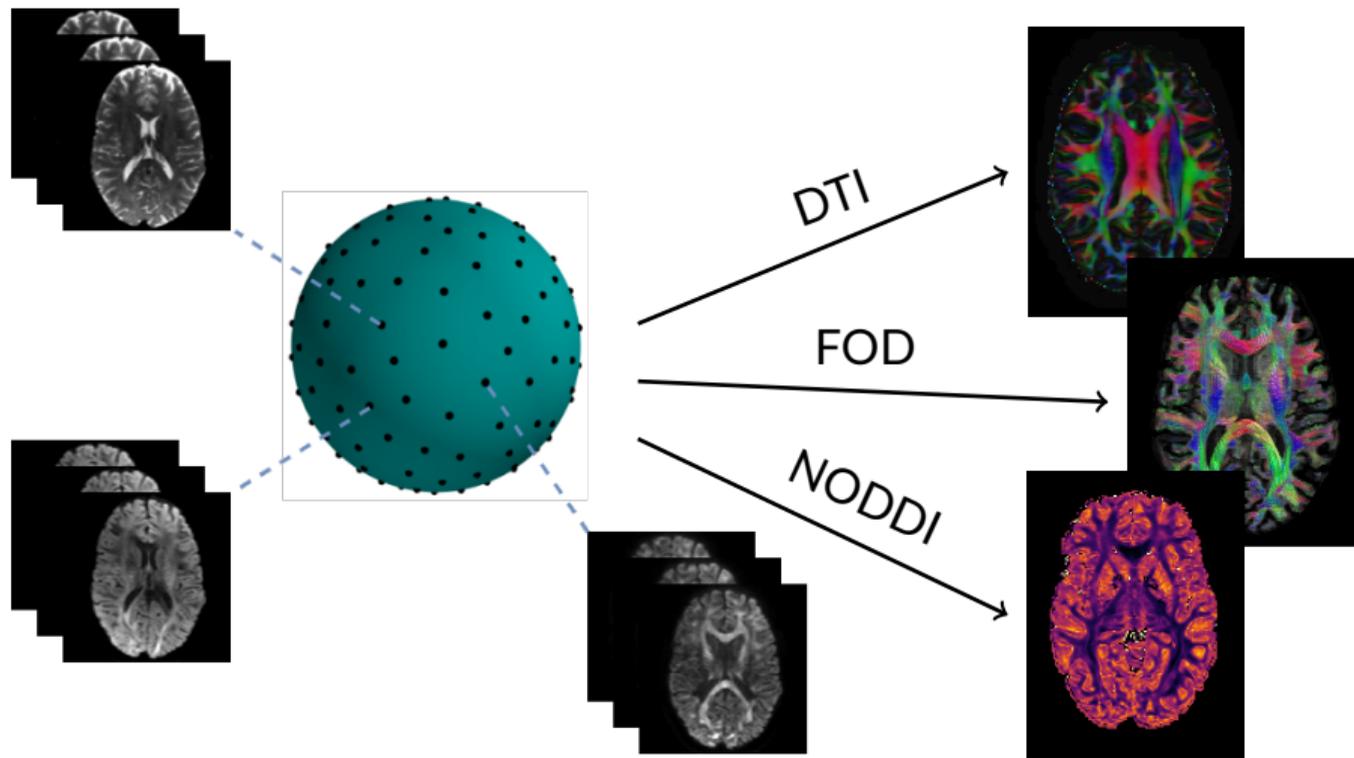


# Spatio-Angular Convolutions for Super-resolution in Diffusion MRI

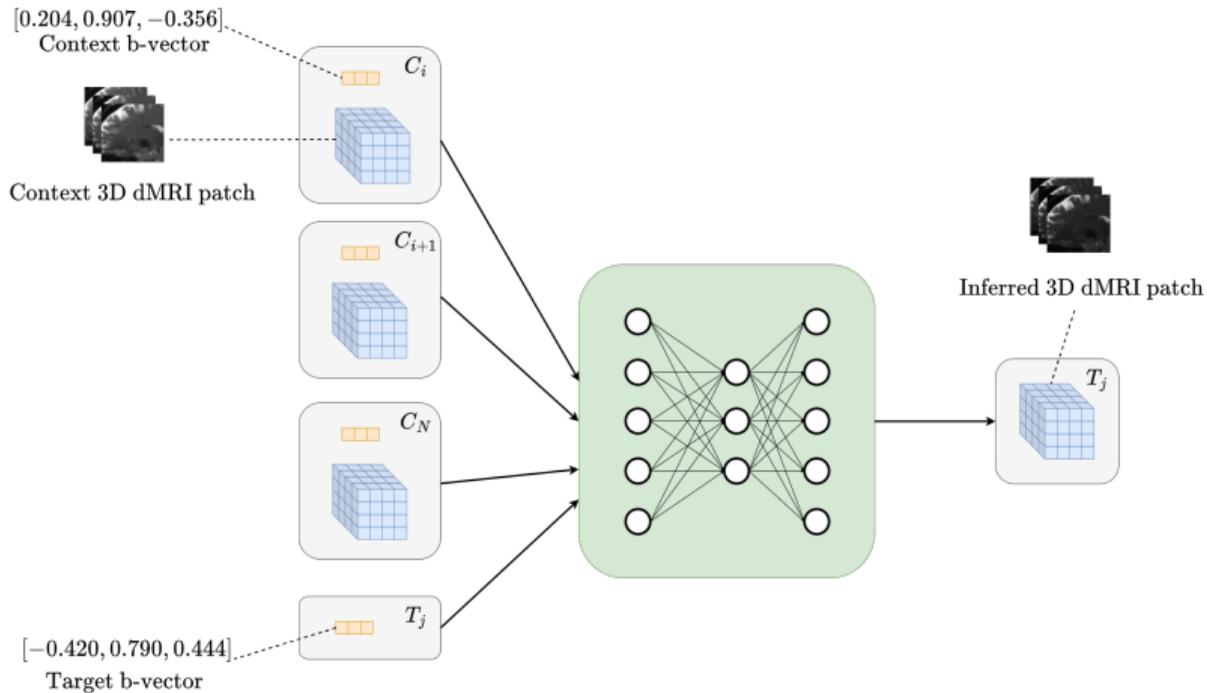
Matthew Lyon<sup>1</sup> Paul Armitage<sup>2</sup> Mauricio A Álvarez<sup>1</sup>

<sup>1</sup>University of Manchester    <sup>2</sup>University of Sheffield

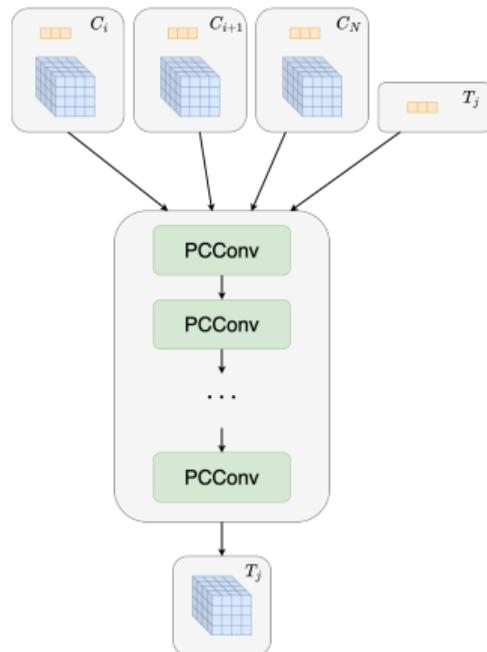
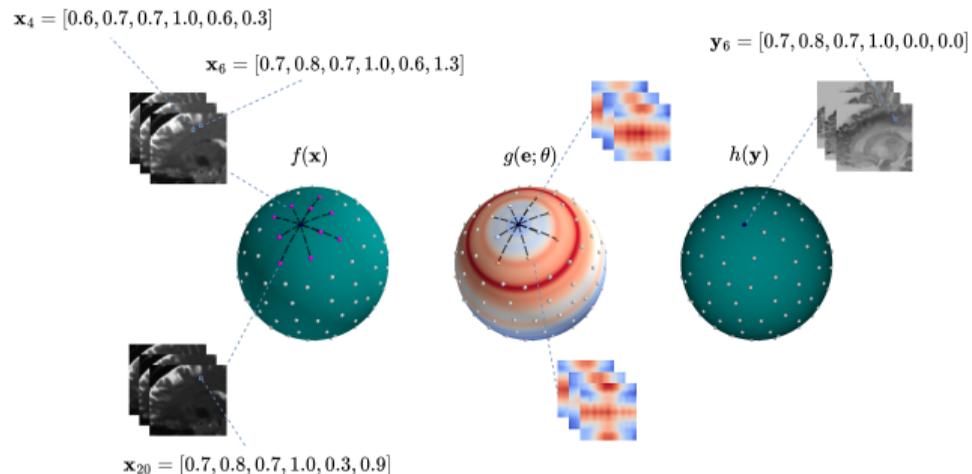
# Diffusion MRI



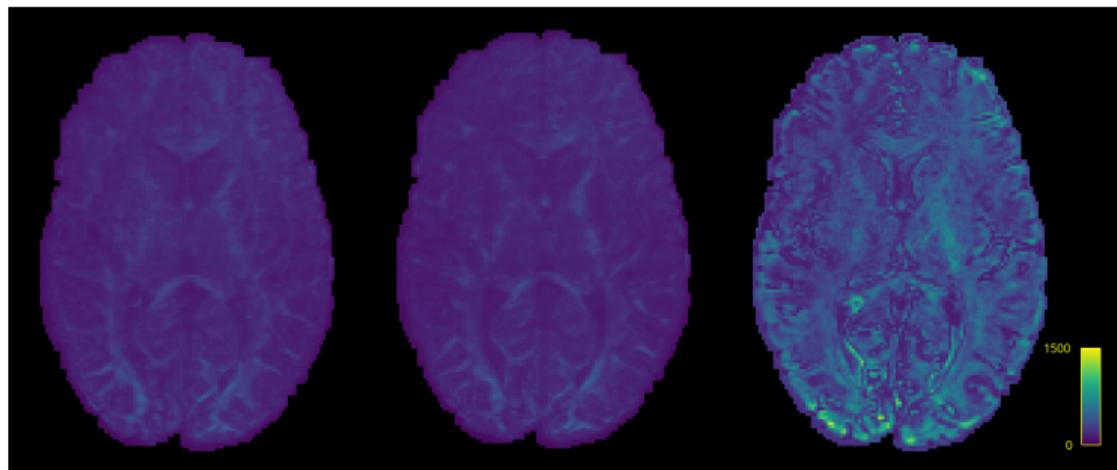
# Angular Super-Resolution



# Parametric Continuous Convolutions



# Results



(a) RCNN

(b) PCCNN

(c) Q-space CGAN

dMRI mean absolute error (MAE)

Model	Parameters
PCCNN	0.77
RCNN	6.82
Q-Space CGAN	13.60

Total number of parameters, in millions, of different deep learning approaches.

# Spatio-Angular Convolutions for Super-resolution in Diffusion MRI



[github.com/m-lyon/dmri-pcconv](https://github.com/m-lyon/dmri-pcconv)