MSc-project: Deep learning for accelerated MRI reconstruction

Matthan Caan (m.w.a.caan at amc dot nl)
Biomedical Engineering and Physics, Amsterdam UMC, location AMC

For more information, interactive images and further reading, visit:
http://sbt.science.uva.nl/mri

Deep learning holds a large promise for accelerating Magnetic Resonance Imaging (MRI) beyond what is currently possible. We have developed the Recurrent Inference Machine (RIM), a deep network that iteratively reconstructs MR images[1] (see links above):
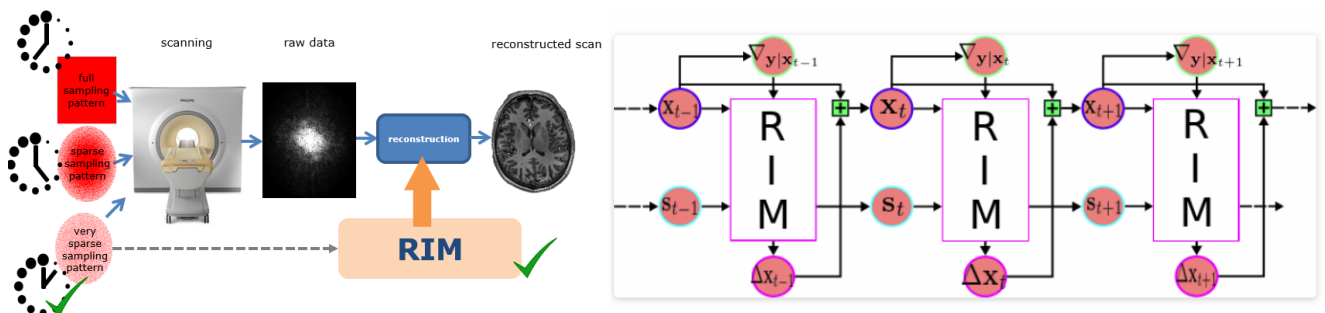
The RIM reconstructs heterogeneous data of varying field strength, contrast and sampling pattern. It can even reconstruct white matter lesions not seen during the training stage:
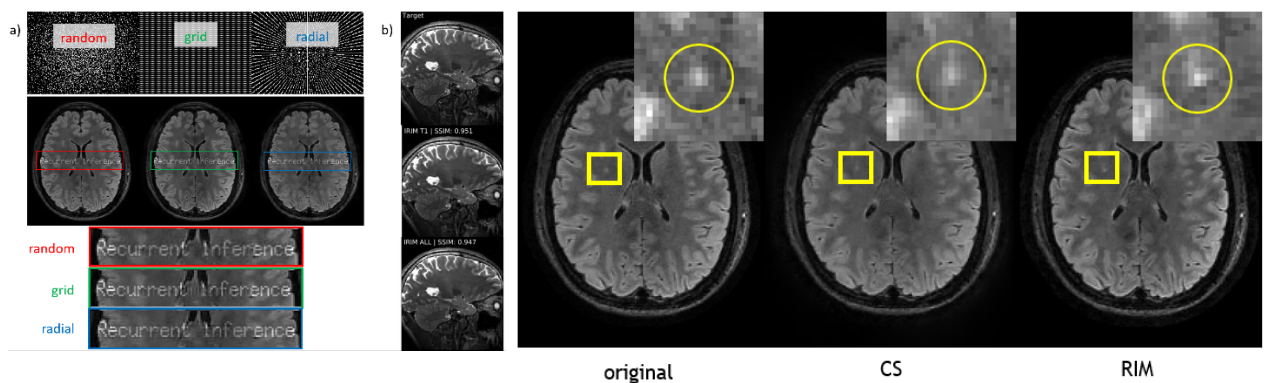
Will you bring the RIM to the next level?

Research topics include:

- quantitative imaging
- segmentation
- clinical studies

MSc-students with a technical background and experience in Python programming can apply.

1. Lønning, K. *et al.* Recurrent inference machines for reconstructing heterogeneous MRI data. *Med. Image Anal.* **53,** 64–78 (2019).