

Mathematical foundations of iterative image reconstruction

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This will be a tutorial talk aimed primarily at researchers who are relatively new to the field of iterative image reconstruction.

Topics covered will include:

log-likelihood, gradient, adjoint,  
convex and non-convex regularizers,  
smooth and non-smooth regularizers,  
sparsity, proximal mappings, hard and soft thresholding,  
optimization methods for MR reconstruction,  
connections between optimization approaches and machine learning  
methods.

The full slides, that will include references  
will be available after the workshop here:

<https://web.eecs.umich.edu/~fessler/papers/files>