

## LIST OF SYMBOLS

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$I_0(x, y)$	Observed noisy image
$I(x, y)$	Original noise free image
$n(x, y)$	Multiplicative noise with zero mean
$\eta(x, y)$	Detector noise which is additive in nature
$\sigma_n^2$	Variance
$J_0(.)$	Modified zero order Bessel function
$u(.)$	Unit step Heaviside function
$M$	Magnitude MR Image
$\phi(\ \nabla I\ )$	Energy function defined in terms of gradient norm of the image
$\sigma$	Standard deviations
$L(P(I / M))$	Negative likelihood term of Rician distributed noise
$c(\ \nabla I\ )$	Conductivity coefficient
$\gamma$	Gradient threshold
$\Delta t$	Integration constant
$\lambda$	Regularization parameter
$z$	Complex number
$n$	Positive integer
$k_1$	Positive number
$c(\text{Im}(I))$	Diffusion coefficient
$k$	Edge threshold parameter
$\alpha$	Constants
$k_0$	Constants
$\theta$	Used as a parameter in the diffusion coefficient

$\psi$	Correction factor
$k_2$	Scale factor
$I(n_j)$	Pixel value
$I(n_m)$	Pixel value
$n_j$	Centered on the pixel $j$
$n_m$	Centered on the pixel $m$
$h$	Factor which controls the decay
$\lambda_1$	Constant to be set according to noise pattern
$\lambda_2$	Constant to be set according to noise pattern
$\lambda_3$	Constant to be set according to noise pattern
$epsy$	Lowest machine number value