Soil Moisture Retrieval Method

Soil Moisture is retrieved by minimizing a unified cost function $L(\hat{X}) = \|d - \hat{f}\|^2$ where $d$ is the active and/or passive data. Optimum model parameters, $\hat{X}_{opt}$, which minimize $L(\hat{X})$ are record as retrieved soil moisture. Minimization of the cost function follows the method of Simulated Annealing, where small random perturbations are applied to model parameters. New states are accepted if the cost function value is reduced smaller than a threshold.