



Separating signal and noise in radar-rainfall fields to generate meaningful ensembles

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For the purpose of generating meaningful stochastic ensembles of radar estimates of rainfall, a relatively simple and objective method of separating a radar rainfall image into signal and noise is described. An alternative noise field, with the same spectrum as the original noise, can then be simulated and combined with the signal field to generate an ensemble member for performing sensitivity studies. The method is based on identifying the proper wavelength in the power spectrum which defines the constant threshold used to separate noise from signal.