% Simulation Computer:

% CPU: Intel(R) Core(TM) i7-14700K 3.40 GHz

% RAM: 32.0 GB (31.7 GB usable)

%% Demo 1: Combined Uncertainty - 36 orientations x 11 scales for sine-wave targets

% Description

% - Total targets: 396

% - Total images: 200,000

% Pre-computation time: 117.662602 seconds / 400 MB

% - Three computational simulation experiments

% Ideal observer Simulation time:

% (1) 54.101974 (10 levels)

% (2) 64.258301 (10 levels)

% (3) 2.184443 (10 levels)

%% Demo 2: Orientation-Scale Uncertainty - 360 orientations x 51 scales for sine-wave targets

% Description:

% - Total targets: 18,360

% - Total images: 60,000

% Pre-computation time: 440.808630 seconds / 11 GB

% - Two computational simulation experiments

% Ideal observer Simulation time:

% (1) 198.556753(30 levels)

% (2) 1377.113502 (30 levels)

%% Demo 3: Custom Uncertainty - CIFAR100 TEST DATASET

% Description:

% - Total targets: 10,000

% - Total images: 30,000

% Pre-computation time: 60.386975 seconds / 3 GB

% - Two computational simulation experiments

% Ideal observer Simulation time:

% (1) 30.682889 (20 levels)

% (2) 23.503893 (26 levels)

%% Demo 4: Custom Uncertainty - CIFAR100 TRAIN DATASET

% Not enough RAM!