

醫用超音波專題

Computer Homework #1: Adaptive Imaging

Due 12:00am 3/20/2002 by emailing to

paichi@cc.ee.ntu.edu.tw

Please refer to the data files “geabr_0”, “geabr_2” and the corresponding parameter files for this homework. A beamforming program in both MATLAB and C are also provided for your reference.

1. Based on the provided beamforming program, make a block diagram of adaptive imaging with time delay error correction. (20%)
2. Based on the block diagram, implement adaptive imaging in either MATLAB or C. (40%)
3. Investigate how iteration would affect the performance of time delay error correction. (40%)
4. Explore any related issues based on the same data files. (bonus)