

MODEL IDENTIFICATION AND ADAPTIVE SYSTEMS

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Academic year 2015/16
Final Exam – September 14, 2016

Answer the following questions:

- 1) Illustrate the Recursive Maximum Likelihood (RML) algorithm.
- 2) With reference to broadband noise feedforward active noise control system, discuss the convergence properties of the FXLMS algorithm.
- 3) Describe the relationship between the Kalman (one-step ahead) predictor and the multi-step predictor and the filter.
- 4) Discuss the main drawbacks of the Forward Regression Orthogonal Estimator (FROE) approach for the identification of polynomial NARX models.

Instructions:

- Report your name and identification number on the top right corner of the first page.
- Use separate pages for answers to different questions (one page for each question).
- Books, course slides, notes are not allowed.