Texas Tech University. Applied Mathematics Seminar.

# Topics in PDE-Constrained Optimization, Part II

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Room: MATH 016. Time: 4:00pm.

**ABSTRACT.** In Part I of this series, we solved a source inversion model problem by first solving the PDE for the transport model, then optimized over parameters in the solution. We saw that regularization of the design variable (source density) was necessary for stable solution. In Part II, we will set up a framework that allows either (a) efficient computation of derivatives with respect to design variables, or (b) simultaneous solution of both the transport model and the inversion problem.