New Results in the Multiscale Analysis on Perforated Domains and Applications

By

DANIEL ONOFREI

A Dissertation

Submitted to the Faculty

of

WORCESTER POLYTECHNIC INSTITUTE

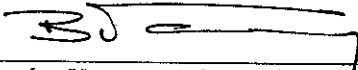In partial fulfillment of the requirements for the

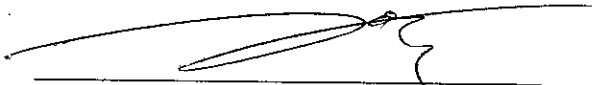Degree of Doctor of Philosophy

in

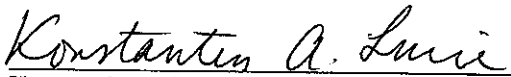Mathematics

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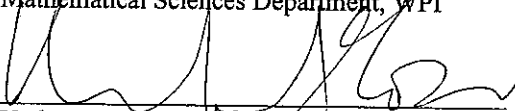Mathematical Sciences Department, WPI

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