FLORIDA STATE UNIVERSITY COLLEGE OF ARTS AND SCIENCES

FILTERING PROBLEMS AND CONVERGENCE ANALYSIS OF KERNEL LEARNING ${\rm FBSDE}\ {\rm FILTER}$

By

YUNZHENG LYU

A Dissertation submitted to the Department of Mathematics in partial fulfillment of the requirements for the degree of Doctor of Philosophy

2024

Yunzheng Lyu defende	d this dissertation on June 24, 2024.
The members of the su	pervisory committee were:
	E . D
	Feng Bao
	Professor Directing Dissertation
	Xiuwen Liu
	University Representative
	Giray Okten
	Committee Member
	Lingjiong Zhu
	Committee Member
The Graduate School	has verified and approved the above-named committee members, and
certifies that the disser	tation has been approved in accordance with university requirements.