

MA4198 PROJECT PROPOSAL (PROJECT CUM SEMINAR GROUP)

SUPERVISOR'S INFO

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PROJECT ID: PS2420-04

TITLE

Finding critical points in nonlinear problems.

BRIEF DESCRIPTION OF PROJECT

To discuss various method to find critical points in nonlinear problems, including degree counting method, Ekeland variational principle, Palais-Smale condition, Mountain pass lemma and Saddle point theorem.

EXPECTATION/S

Able to understand the topics well, with the ability to solve specific examples.

PREREQUISITE/S (at level 3000 or below, with at most one course at level 3000)

MA3209 (Metric and Topological Spaces)

READING REFERENCE/S

Mountain Pass Theorems with Ekeland's Variational Principle... by Hazhar Ghaderi