

Table 1: Revision History

Date	Developer(s)	Change
2018-12-08	Robert E. White and Dmitry Pelinovsky	Creation of first draft

CAS 741: Development Plan

SpecSearch

Team

Dr. Dmitry Pelinovsky
Robert E. White

The software being developed in this project is called SpecSearch. It is the initial phase of my master's thesis project in applied mathematics with Dr. Dmitry Pelinovsky. We will use this software to discover clues in our analytical study of rogue waves and the Non-Linear Schrödinger equation.

1 Team Meeting Plan

I will meet with Dr. Dmitry Pelinovsky in his office from 9:30-11:00AM every tuesday from September 1 2018 until December 11 2018.

2 Team Communication Plan

We will communicate via email and in person during our weekly meetings.

3 Team Member Roles

Dmitry Pelinovsky is the master's thesis supervisor. Robert White is his master's student.

4 Git Workflow Plan

The git workflow plan was outlined by Dr. Spencer Smith in his CAS 741 class. Documents will be periodically pushed into the github repository https://github.com/whitere123/CAS741_REW. Feedback from our CAS 741 colleagues will be presented as issues shortly following a document submission. The final documentation and code is to be pushed into github on December 10, 2018. The plan begins with the submission of a problem statement followed by peer edits. This process is repeated every other week with the SRS, design, VnV Plan and VnV report. These documents and issues can be found in the previously mentioned github repository.

5 Proof of Concept Demonstration Plan

The project was approved by Dr. Dmitry Pelinovsky and Dr. Spencer Smith from McMaster university.

6 Technology

The software will be created using MATLAB and should run on a machine running the windows operating system.

7 Coding Style

The coding style followed the standard's of my thesis supervisor and his colleagues in numerical analysis. Since the code is important for their research purposes, and is not too computationally heavy, it was not necessary for the code to follow any outside standards or templates. This coding style was driven by the nonfunctional requirement of being maintainable by my supervisor and his colleagues.

8 Project Schedule

	September 1 - 15	September 16 - 30	October 1 - 15	October 16 - 31	November 1 - 15	November 16 - 30	December 1 - 11
Digesting literature							
Creating spectral equations							
Choosing numerical algorithms							
Writing Code for each numerical algorithm							
Comparing the numerical algorithms							
Testing the code							
Final draft of software							

9 Project Review

Reviews of the project have been presented as issues in https://github.com/whitere123/CAS741_REW. The final project will be critqued by Dr. Spencer Smith.