**Stellar Modeling**

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**Algorithms**

The following algorithms are used to solve the equations in the project outline. We will also discuss the reasoning behind these algorithms and the choices behind them. For full project details please see the project outline.

**Preface**

When choosing the coding language for this project, we chose Python as its the language used for the computational physics classes at Waterloo. Other languages like C++ would offer more functionality and if we were to redo the project I would use that language. The python packages used for this were numpy and matplotlib.pyplot, for their full documentation please see https://docs.scipy.org/doc/ and https://matplotlib.org/contents.html.

**Function Definitions**

In python it is common practice to predefine functions in the code for later use. This allows us to reuse functions repeatedly without cluttering our code. The first section of our code contains all of our function definitions.