PHYSICS PYTHON ASSIGNMENT

All questions should be submitted in a single Jupyter notebook (.ipynb file). You are encouraged to use online resources (e.g. Python documentation) when answering the questions. You should work independently.

TOTAL MARKS FOR ASSIGNMENT: [100 marks]

CODE QUALITY

- *Your notebook should be well-structured.* Use Markdown cells to write headings for each question part.

  [2 marks]

- *Your code should be well-documented.* Write in-line code comments (starting with a "#") that describe the intention of your code and any potential problems. You can also use Markdown cells for more lengthy comments.

  [4 marks]

- *Your code should be reproducible.* Use `print(packagename.__version__)` to print the version number for each package you import.

  [2 marks]

- *Your code should be readable.* Variable and function names should be sensible, expressive and consistent. Code formatting (for example, brackets) and use of whitespace should be consistent.

  [4 marks]

- *Your code should be concise.* Duplication of code should be avoided where possible. Appropriate functions and data-types, including those from external libraries, are used. Control structures are used appropriately.

  [6 marks]

- *Your code output should be readable.* Numerical answers should be printed to the screen and plots should be displayed at a reasonable size.

  [2 marks]

TOTAL MARKS FOR CODE QUALITY: [20 marks]