

Final Project

Start here / student package

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Choose one focused investigation. Establish the mechanics, pursue a question, check the central result, and explain what you learned. Later Hamiltonian material may enrich the work; it is not a reason to delay starting.

Read in this order

1. [The assignment](#): common requirements, milestones, submissions, and grading.
2. [The topic chooser](#): compare the six investigations, then read the sheet for your preferred topic.
3. [The rubric](#) and [presentation guide](#): see how the work will be evaluated.

Choose your investigation

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- A [Discrete evolution: accuracy versus preserved structure](#)
 - B [Conservation before the continuum limit](#)
 - C [From mechanisms to soft modes](#)
 - D [Beyond the Kepler ellipse](#)
 - E [Designing motion rather than predicting it](#)
 - F [Local evolution versus stationary action](#)
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Dates to protect

Proposal with proof of concept: **October 28**. Checkpoints: **November 11** and **November 23**. Presentations: **December 9**, 5 minutes plus 2 minutes of questions. Final report: **December 21**. Written uploads are due by 11:59 PM, New York time.

Course schedule change: December 9 is for presentations and review as time permits. Exam III occupies the entire December 14 class. No presentations will be carried into that exam meeting.

Templates and resources

[Proposal template](#) [Checkpoint template](#) [Report template](#)

[Presentation outline](#) [Starting resources and technical conventions](#)

Every PDF has a matching editable `.tex` source. The templates compile independently; LaTeX is optional. Extract the entire ZIP before opening documents. Keep the folders intact for cross-PDF links. Some browser PDF viewers block local-file links; use a desktop PDF reader or navigate by filename. `README.md` explains the package and compilation.