MILESTONE TABLE: YEAR 1

Milestone[1]	**Details**	**Progress**
§2 - Finish SIMpliPy workflow management tool	Resource: *Mira* node-hours: – Online storage: – Archival storage: –	Partially complete. Capable of managing automatic restarts, including job submission. Can configure large parameter studies and build custom job execution scripts.
§2 - Implement marching cubes for EOS and opacities	Resource: *Mira* node-hours: – Online storage: – Archival storage: –	In progress. Substantial progress in improving efficiency in this part of the code through vectorization.
§2.2 - High-fidelity 3D Simulations of Magnetorotational CCSNe	Resource: *Mira* node-hours: 4.1M Online storage: 40 TB Archival storage: 80 TB Resource: *Theta* *Mira* node-hours: 141k Online storage: 20 TB Archival storage: 40 TB	On track. All planned simulations running in the Capability queue.
§2.3 - 3D Simulations of Iron Core Collapse in Rotating Stars	Resource: *Mira* node-hours: 1.25M Online storage: 10 TB Archival storage: more	Significant progress in improving simulation application. Test simulations completed. Production simulations to start soon.
§2.4 - High-resolution Simulation of Magnetorotational Turbulence in CCSNe	Resource: *Mira* node-hours: 3.75M Online storage: 50 TB Archival storage: 100 TB	Initial simulations to adequate post-bounce time complete. High-resolution simulations are now ready to commence.
Total Request – *Mira*: 9.375M node-hours, 100 TB storage; *Theta*: 141k node-hours; 40 TB online storage		

[1] Yellow: code development milestone; Teal: simulation milestone.

MILESTONE TABLE: YEAR 2

Milestone[1]	**Details**	**Dates**
§2 - Implement TEAMS opacities and EOS and NES	Resource: *Mira* node-hours: – Online storage: – Archival storage: –	Jan – Apr 2019
§2.5 - Long time scale simulations	Resource: *Mira* node-hours: 4.1M Online storage: 40 TB Archival storage: 80 TB	Jan – May 2019
§2.7 - High-res PNS dynamo simulation	Resource: *Mira* node-hours: 3.9M Online storage: 50 TB Archival storage: 100 TB	Mar – Oct 2019
§2.6 - MHD progenitor simulations for more masses	Resource: *Mira* node-hours: 1.375M Online storage: 10 TB Archival storage: 20 TB	Jan – Apr 2019
§2.8 - CCSN sims with 3D progens from Year 1	Resource: *Theta* node-hours: 281k Online storage: 40 TB Archival storage: 80 TB	Mar – Oct 2019
§2 - Implement high-order MHD based on differential transforms	Resource: *Mira* node-hours: – Online storage: – Archival storage: –	Jan – May 2019
Total Request on *Mira*: 9.375M node-hours, 100 TB storage; *Theta*: 281k node-hours, 40 TB online storage		

[1]Yellow: code development milestone; Teal: simulation milestone.