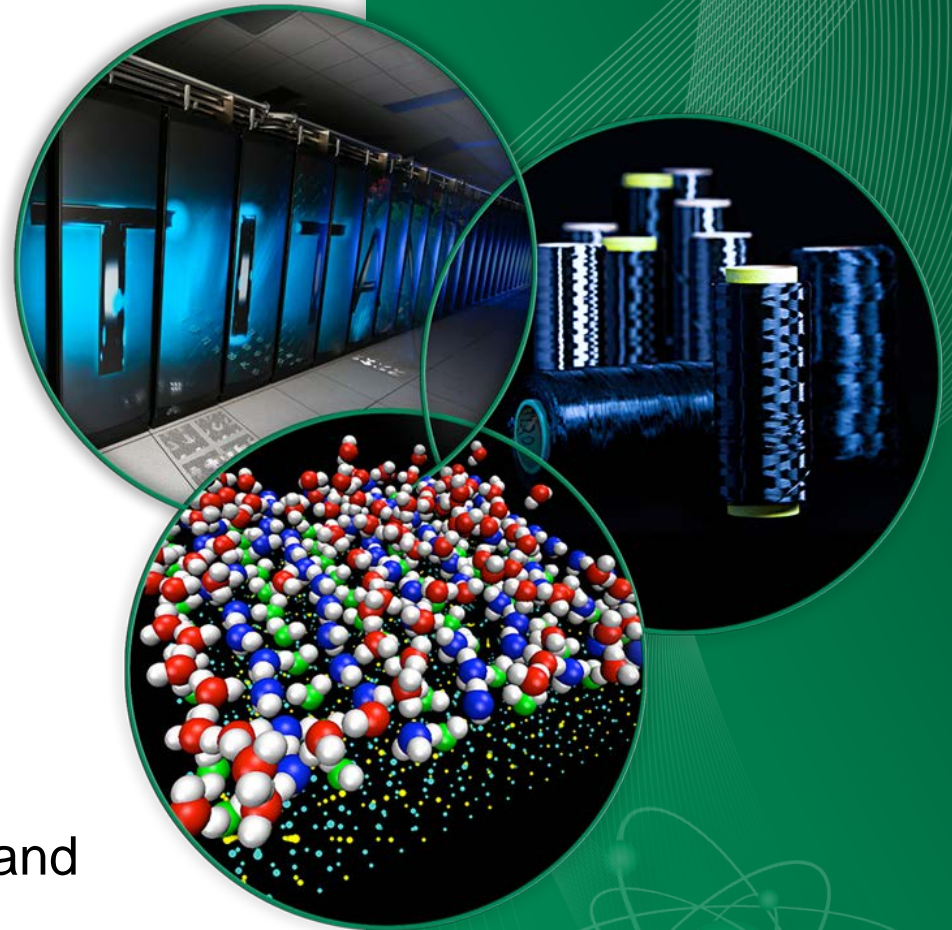


# Crystal Ball

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# Brief impressions...

- Python is ubiquitous – good
  - at least in some user communities, still considered bleeding edge
- DSLs also no longer considered so exotic
  - as others have observed, in some sense a generalization / formalization of libraries, with greater opportunity for optimization
  - concern about proliferation (“looks nice, but doesn’t quite fit my needs”)
- proxy apps / mini-apps
  - have to serve as basis for interaction between computational scientists and computer scientists, not as a way to just keep those computer scientists occupied
- evolution vs. re-factor vs. total re-write
  - codes live longer than platforms / systems, and architectures are changing faster than applications can adapt - performance portability is extremely challenging
  - increased willingness to consider total re-write, or at least significant re-factor
- really like the analogy of supercomputers as scientific instruments
  - software itself remains under-valued by funding agencies (don’t want to hear about or fund effort to adapt to new architecture/system, much less a re-write)
  - analogy can serve as basis for conversation about value of the software

# Panel questions...

- unexpected / surprising
  - similarity of challenges in HBP, interest in TriBITS (developed for CASL)
- learned / found interesting
  - low power / high density efforts
  - DSLs
- want to hear more about
  - Optix
  - computational engineering / design – continuum / system scale

# Questions?

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