

Near-term Plans for SPARTA

Steve Plimpton & Michael Gallis
Sandia National Labs
sjplimp@sandia.gov & magalli@sandia.gov

DSMC15 Short Course
Sept 2015 - Kapaa, Hawaii



Sandia National Laboratories is a multi-program laboratory managed and operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.



New features we're thinking about

- Recombination reactions
- Grid-style variables
- Fix emit/surf/file command
- Choose nearby collision partners within grid cell
- Read_particle command
 - allow input of particles from another code (PIC)
- Enhanced library interface
- Allow Python code to be embedded in input script
- More gas collision, surface collision, reaction models?
- Support for GPU and Intel Phi acceleration
- Spectral Sciences, Incorporated
 - Tim Deschenes and collaborators
 - SBIR funding, LGPL license
 - GUI wrapper, cloud execution model

Open discussion

Your ideas or questions:

- Questions about anything we've presented?
- Features you'd like to see added to SPARTA?
- Features you'd like to help implement?
- Suggestions for tutorial, doc pages, examples, web site?
- Other ...

Thanks

- We're done - thanks for attending the short course

Thanks

- We're done - thanks for attending the short course
- Surfs up!

