



Modernizing ATLAS simulation



- The ATLAS simulation code has been assisting detector design and data analysis since the very inception of the project
- In its current implementation, it is being extensively run on distributed resources to fulfill the needs of an ever growing number of analyses
- The large amount of legacy code is getting more and more challenging to maintain
- New challenges have pushed the experiment to embark on a major code modernization effort
 - Main focus on increased flexibility, performance optimization, parallel processing
- Migration carried on in steps, every step thoroughly validated against the old code
- The status today is an almost complete detector simulation, capable of running in multi-thread mode
 - The few missing parts of code are being worked on as we speak