Energy and performance monitoring and models towards sustainable Exascale computing

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Monitoring large-Scale applications with limited data

- Stable behavior
- Reduced monitoring
- Adaptive measurement frequency :
 - Lower frequency when behavior is stable
 - Higher frequency when variations appear

Modeling the impact of various leverages

- Detect and describe phases (CPU-bound, Memory-bound,...)
- Test optimization strategies
- A model relating resources, energy, and performance
- Experimental platform: Grid'5000

Thank you for your attention





