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