Data intensive ATLAS workflows in the Cloud

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Contribution Nr. 152
The Model

- Not yet validated, no error estimations
- Evaluate workflow behaviour on a given infrastructure
- Compare different configurations
- Find possible adaptations and optimisations
- Assess Grid workflow requirements of a Cloud site
- Simple Model: Independent input values (HEPSPEC...)
- Modular: Combination of different (Sub-) Workflows
- Generic: all experiments, even outside physics
- Correlations: e.g. How does CPU-time impact bandwidth requirements
- Result:
  - Common metric: Events/s/chf (“physics“ per time and money)
Conclusion

- The Model aims at describing workflows on different infrastructures.
- It can help choosing the optimal Cloud provider: by choosing the correct infrastructure and also considering the pricing models.
- The Model will be able to find and validate new optimisations (e.g. Overcommitting).

Work sponsored by the Wolfgang Gentner Programme of the Federal Ministry of Education and Research.