Book-Keeping DB Normalization

- Normalization analysis of the book-keeping database (*sbk5*) carried out
- sbk5 relies on PostgreSQL 9.1 and exploits *hstore* datatype (n-tuple *key->value*)
- Normalization study concerning database compliance to first three normal forms (NF1, NF2 and NF3)
- Four logical hierarchical levels have been identified for fastsim/fullsim book-keeping tables:

1.Production
2.Request
3.Submission
4.job+log+output+stat

- From normalization study, the overall quality of *sbk5* is reported to be very good
- Excluding specific consideration concerning *hstore* fields, few minor corrections have been recommended in order to make *sbk5* NF1, NF2 and NF3 compliant
- *hstore* fields are accessed by queries on single couple key->value so they are not NF1 compliant (waste of resources). But *hstores* are "*rows with many attributes that are rarely examined*" (~100 updates every 6 months for *sbk5*). Trade-off: *hstore* are kept (de-normalized wasting resources) because of its ease of access at very low frequency (only human interaction)