

INS1 – Database Architectures & Information Access (before 2009)

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(manager ITF since 2009) (tenure track since 2010) (INS2 since 2009)



Research area & long-term goal

- Fundamental system-oriented database architecture research
- Advance database technology to address large-scale data management challenges in science





Research heliview

2005200620072008200920102011 -Multimedia Information RetrievalGraph databasesRDF/SPARQL

MonetDB/XQuery

MonetDB/SQL scientific databases, astronomy SciQL

Database Cracking

Distributed database technology DataCyclotron

Remote Sensing

GeoTemporal warehousing

Seismology



Trophy chest

- High level of project funding, software dissemination
- 6 PhD's, 1 professorship (1 pending)
- Several best-paper awards, keynotes, community services
- CACM invitation for Research Highlights (2008)
- VLDB 2009 10-year Best Paper Award

 First European group to receive ACM SIGMOD Jim Gray Doctoral Dissertation Award (2011)



Strengths

- Complementary individual scientific strengths
- Distinctive team "branding"
- Balance between fundamental research and system development
- Large and diverse network in and beyond database community
- Dissemination to science, economy and society via opensource





Weaknesses

 Complex experimental computer science environment forms high threshold to get newcomers involved





Opportunities

- Healthy project portfolio (vacancies:
 - 5 PhD, 1 postdoc)
- Expanding towards e-science challenges
- Build innovative database machine





The FOURTH PARADIGM DATA-INTENSIVE SCIENTIFIC DISCOVERY

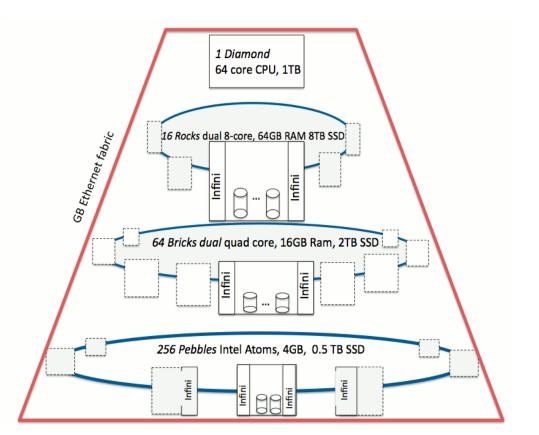
TO A TONY HEY STEWART TANSLEY, AND KRISTIN TOLL



Threats

 Tough competition for research & engineering skills

 Active and growing user community (>10000 downloads per month)





INS1 is well positioned for the next 5 years

