

BBiologically
IInspired
SSystems and
CCalculi with
AApplications

Bertinoro, 7th June 2008

Rather ...



National project



Co-founded by MiUR and by Universities, with nearly no money!

Participants

- Bologna (+ Milano): Calculi, Simulation
- Pisa: Calculi, Simulation&Verification, Modelling
- Siena: Simulation&Verification, Modelling
- Trento: Calculi, Simulation&Verification
- Udine: Hybrid Systems, Simulation&Verification, Modelling

People

- Bologna: 3 + 1 Postdoc + 2 PhD
- Pisa: 6 + 2 Postdocs + 5 PhD
- Siena: 4 + 4 PhD
- Trento: 2 + 2 PhD
- Udine: 5 + 1 PhD

Cooperation with other research centers, both academic (e.g. CoSBI, IGA, CBM) and industrial (e.g. Novartis, Sienabiotech, ProteoGenBio)

In the presentations to come

Some specific results on

- cell modelling
- bio-inspired rewriting calculus
- verification techniques — not delivered
- hybrid systems: continuous + discrete
- comparative analysis of bio-calculi

Major result: attracting smart young people!

Still missing

- tighter links with biologists (wet labs, common language, tools...)
- breaking and re-building complex systems
- systematic methods for designing and inferring models
- more expressive languages within quantitative approaches
- ...