

Emerging Technologies & New Computing Paradigms

- **Quantum Computing** [<http://www.nsf.gov/pubs/2000/nsf00101/nsf00101.htm>]
 - ◆ Security (cryptography)
 - ◆ Error correcting codes
 - ◆ Structural redundancies & diversification

- **Nanotechnologies** [<http://www.nas.nasa.gov/Groups/SciTech/nano/index.html>]
 - ◆ Data storage
 - ◆ Self-replicating systems [<http://www.zyvex.com/nanotech/selfRep.html>]

- **Biological Computing** [<http://cism.jpl.nasa.gov/program/RCT/BioCompUD.html>]
 - ◆ Space exploration requires more autonomous, intelligent spacecraft and planetary explorers, with the potential to self-organize and self-repair
=> Exemplary class for inspiration living organisms.

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