

2009/2010 – Programa

0. Exemplos de avarias provocadas por falhas de hw/sw.

1. Fiabilidade, conceitos e definições.

2. Redundância e técnicas de tolerância a falhas.

3. Tolerância a Falhas em Sistemas Distribuídos.

4. Replicação de dados e Recuperação de processos

5. Comunicação em Grupo.

6. Tempo e relógios.

6. Ordenação.

7. Consenso.

8. Estudo de artigos recentes na área.

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IEEE Transactions on Parallel and Distributed Systems)

Bibliografia:

[Avizienis2004] “Basic Concepts and Taxonomy of Dependable and Secure Computing” A. Avizienis, J. C. Laprie, B. Randell and Carl Landwehr, IEEE Trans. On Dependable and Secure Computing, Vol 1, N° 1, January-Mach 2004.

[Verissimo2001] “Distributed Systems for System Architects”, Paulo Verissimo and Luís Rodrigues, Kluwer Academic Publishers, 2001.

[Jalote1998] “Fault Tolerance in Distributed Systems”, *Pankaj Jalote*, Prentice-Hall, 1998.

[1] *Software-based Replication for Fault Tolerance*, *Rachid Guerraoui and André Schiper*, *IEEE Computer*, pp. 68-74, 1997.

[2] *Understanding Replication in Databases and Distributed Systems*, *M. Wiesmann, F. Pedone, A. Schiper, B. Kemme and G. Alonso*, *Proc. of Int'l on Distributed Computing Systems (ICDCS 2000)*, pp. 264-274, 2000.

[3] *The Process Group Approach to Reliable Distributed Computing*, *Kenneth P. Birman*, *Communications of the ACM*, Vol. 36, N° 12, 1993.

[4] *The Many Faces of Consensus*, *John Turek and Dennis Shasha*, *IEEE Computer*, 1992.

[5] *Consensus: the Big Misunderstanding*, *Rachid Guerraoui and André Schiper*, *FTDCS*, 1997.

DSN– Int’l Conference on Dependable Systems and Networks,
URL: <http://www.dsn.org/>

IEEE Transactions on Parallel and Distributed Systems.