UFPE/CIn/Graduação em Ciência da Computação, 1/2001
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Processos Estocásticos com Aplicações em Redes de Alta Velocidade

- Ementa: Introdução aos Processos Estocásticos. Modelos ARIMA(p,d,q). Auto-similaridade. Distribuições com caudas pesadas.
- Dias de aula:
  - Março: 6,8,13,15,20,22,27,29
  - Abril: 3,5,10,17,19,24,26
  - Maio: 3,8,10,15,17,22,24,29,31
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- Critério de Avaliação:
  - Presença às aulas.
  - A cada artigo lido, cada aluno deve preencher um formulário de uma página contendo (a) título, (b) autor(es), (c) dados sobre a publicação, (d) objetivo, (e) técnica(s) utilizada(s), (f) conclusões, (g) dificuldades, dúvidas. Cada formulário preenchido terá uma nota variando de 0 a 10.
- Alguns *links* de interesse:
  - http://gmc.ucpel.tche.br/ejmc/index.htm
  - http://www.sbmac.org.br
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  - http://www.aciri.org/vern/papers.html
  - http://www.cs.bu.edu/fac/crovella/papers.html
  - http://kleene.math.wisc.edu/ kurtz/papers/workall.pdf
  - http://math.bu.edu/people/murad/pub/tails-w16-posted.ps
  - `http://www.research.att.com/~anja/feldmann/papers.html`
  - http://www-dsp.rice.edu/ riedi
- Artigos:

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2. *M. E. Crovella and A. Bestavros*, "Self-Similarity in World Wide Web Traffic: Evidence and Possible Causes", IEEE Trans. Networking, vol. 5 no. 6, Dec. 1997, pp. 835-45.
3. *A. Erramilli, O. Narayan, and W. Willinger*, "Experimental Queueing Analysis with Long-Range Dependent Packet Traffic", IEEE/ACM Trans. Networking, vol. 2, no. 4, pp. 209-223, 1996.
4. *A. Feldmann, A. C. Gilbert, W. Willinger and T. G. Kurtz*, "The Changing Nature of Network Traffic: Scaling Phenomena".
5. *D. L. Jagerman, B. Melamed and W. Willinger*, "Stochastic Modeling of Traffic Processes",
6. *W. E. Leland, M. S. Taqqu, W. Willinger, and D. V. Wilson*, "On the Self-Similar Nature of Ethernet Traffic", DRAFT (extended version), Mar. 1993.

7. *P. R. Morin*, "The Impact of Self-Similarity on Network Performance Analysis", Ph.D. dissertation, Carleton Univ., Dec. 1995.
8. *I. Norros*, "A storage model with self-similar input", Queueing Systems, 1994.
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10. *K. Park, G. Kim, and M. Crovella*, "On the Relationship Between File Sizes, Transport Protocols, and Self-Similar Network Traffic", Proceedings of the Fourth International Conference on Network Protocols (ICNP'96), October 1996, pp. 171-180.
11. *K. Park, G. Kim, and M. Crovella*, "On the Effect of Traffic Self-Similarity on the Network Performance", In Proccedings of the 1997 SPIE International Conference on Performance and Control of Network Systems, 1997, pp. 296-310.
12. *V. Paxson*, "Growth Trends in Wide-Area TCP Connections", IEEE Network, 8(4), pp. 8-17, July/August, 1994.
13. *V. Paxson and S. Floyd*, "Wide-Area Traffic: The Failure of Poisson Modeling", IEEE/ACM Trans. Networking, vol. 3, no. 3, Jun. 1995, pp. 226-244.
14. *Z. Sahinoglu and S. Tekinay*, "On Multimedia Networks: Self-Similar Traffic and Network Performance", *IEEE Communications Magazine*, Jan. 1999, pp. 48-52.
15. *T. Tuan and K. Park*, "Congestion Control for Self-Similar Network Traffic", 1998.
16. *A. Veres and M. Boda*, "The Chaotic Nature of TCP Congestion Control",
17. *W. Willinger, M. S. Taqqu, R. Sherman, and D. V. Wilson*, "Self-Similarity Through High-Variability: Statistical Analysis of Ethernet LAN Traffic at the Source Level", Proceedings of ACM SigComm'95, Cambridge, Ma, August/September 1995, pp. 100-113.