

研究、その他紹介

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Talk in Japanese
Slides in English
Slides available at

<https://goto920.github.io/Docs/20191106-talk.pdf>



1. Origin: Queueing Networks

- Doctoral dissertation: Studies on Queueing Problems in Traffic Flows, 1986
 - Chap. 2: Analysis on a Sattelite Channel with Two Types of Downlink Error
 - Chap. 3: Performance Evaluation for a FCFS-Like Group Random Access Protocol on Bus Networks
 - Chap. 4: An Approximate Analysis on Cotrolled Tandem Queues
 - Chap. 5: Performance of an Extra Lane for Slow Vehicles

2. Tools Learned in 1980s

- Applied Math (Queueing Theory)
 - 応用確率論、Laplace変換、数値計算
- Event driven Simulation Programming
 - Modeling、FORTRAN、Simulation Language

3. Past Non-academic Activities

- 1986--: Joho Kanri Gakka (Keiei)
 - 1.5 year at UC Irvine (Academic brother, got married Rita Coolidge, retired)
 - Unix(SunOS) Administration
 - Network Administration
- --1990--
 - Building J Network design, Campus LAN design
 - Tokai Internet Community, 100 schools supporter
 - JPNIC Steering Committee member
 - JUCE activities
- --2000-- Seto Campus network design, ISMS for [Can@Home](#)
- Current office room is the 6th room (N, J, Seto, Seto, S, Q)

4. Research Papers

<input type="checkbox"/>	TITLE			CITED BY	YEAR
<input type="checkbox"/>	Performance and QoS of Next Generation Networking: Proceedings of the International Conference on the Performance and QoS of Next Generation Networking, P&QNet2000, Nagoya ...			6	2012
	K Goto, T Hasegawa, H Takagi, Y Takahashi Springer Science & Business Media				
	師匠が瀬戸キャンパスで開催、procを編集した				
<input type="checkbox"/>	Proxy Servers: Case Study for Cache Hit Ratio and Response Time				2012
	K Goto, H Amano Performance and QoS of Next Generation Networking: Proceedings of the ...				
	自分の論文はこれ				
<input type="checkbox"/>	ネットワークエミュレータ GINE を用いたマルウェア解析環境の構築				2012
	光枝靖章, 後藤邦夫, 河野浩之 コンピュータセキュリティシンポジウム 2012 論文集 2012 (3), 114-121				
<input type="checkbox"/>	Network emulator with virtual host and packet diversion			2	2012
	K Goto Cyber Journals: Multidisciplinary Journals in Science and Technology ...				

Dual Core CPUの時代。以後、カーネル機能向上でGUIつきNISTNetに負ける

4. (cont.)

- Network emulation – route real packets
 - Packet diversion (横取り) with Linux/Free BSD kernel module addition
 - Low level socket API programming (AF_NETLINK, AF_PACKET on Linux)
 - Router/line delay, capacity emulation with system real time clock
 - Connection between virtual hosts (VirtualBox, Linux container etc.)
- Computer network security – intrusion detection, e-mail graylisting etc.
- All list:
https://scholar.google.com/citations?hl=en&user=nQrExGIAAAAJ&view_op=list_works&sortby=pubdate

5. Papers in Education

- | | | | |
|--------------------------|---|---|------|
| <input type="checkbox"/> | Educational Application of the Internet: International Joint Teleclass | 5 | 1995 |
| | K Aoki, K Goto
Proc. INET 95 | | |
| | COIL-like challenge with old tools | | |
| <input type="checkbox"/> | 南山大学における情報通信基盤整備 | | 1995 |
| | 後藤邦夫
私情協ジャーナル 3 (4), 30-2 | | |
| <input type="checkbox"/> | Summary of K12 activities in Japan | 5 | 1995 |
| | K Goto
Proc. INET'95 | | |
| | Dawn of school networking with Dr. Nakayama | | |

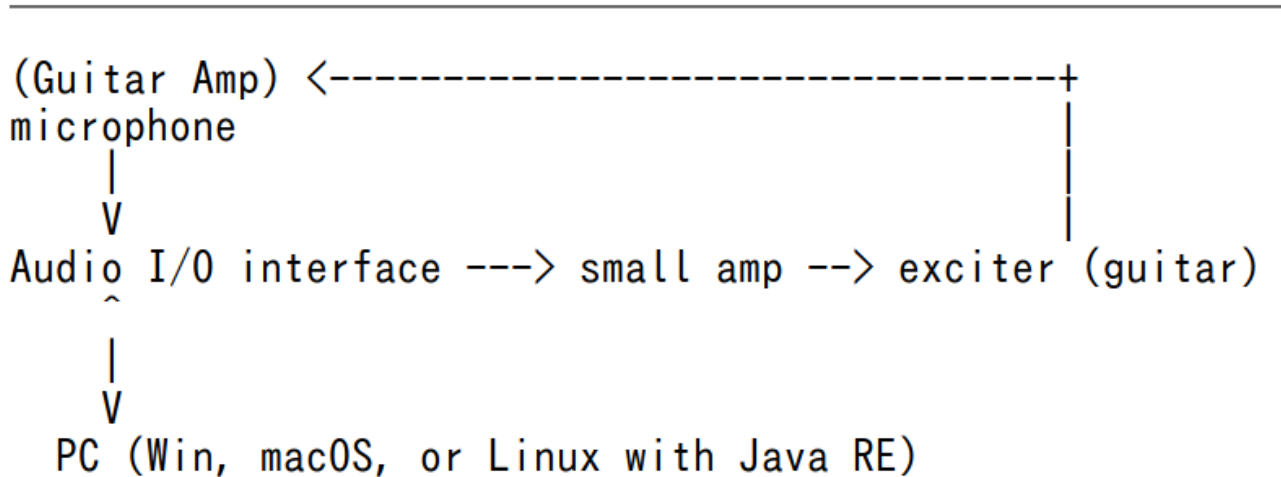
- <http://www.isoc.org/inet95/proceedings/PAPER/021/html/paper.html>
- <http://www.isoc.org/inet95/proceedings/PAPER/172/html/paper.html>

6. Current Interest

- Musical applications – not published yet
- Examples <https://goto920.github.io/>
 - Presentation Timer (practice, in JavaScript (React))
 - Metronome/Drum beats (for drummer, JavaScript)
 - FilteredPlayer.jar (for PC with Java Runtime)
 - Split stereo sound by percussive/harmonic, pan(L-R)
 - Suppress vocal at center, Suppress drum sounds etc.
 - (guitar) Feedback booster, Variable Speed/Pitch Music Player

5. (cont.) Feedback booster (Java)

- Fundamental pitch detection, eq, compression



6. Work in progress

- Adding clicks to popular music source
 - Beat detection/estimation at quasi-realtime click
 - Commercial software cannot handle all songs (e.g. Rec'n'Share(iOS) for Yamaha EAD-10)
 - Beat detection of songs without percussion is harder
- FilteredPlayerApp implementation in JavaScript for smartphones
 - Java Runtime is not available on smartphones
 - Web Audio API, Fourier transform, array manipulation etc.
 - Simple GUI

Appendix: 仕事以外

- LP album in 1980
<https://www.youtube.com/playlist?list=PLa4FsPdQ51PF5086fESye8wQauTmhlXxj>
- Live performance in 1980
<https://www.youtube.com/playlist?list=PLa4FsPdQ51PGSDgbJ83Fk-cSKsOwyFN6f>
- Best vocal performance in 2018
<https://www.youtube.com/watch?v=89wtjR4Klug>
- (Work) Example video of my classes
<https://www.youtube.com/playlist?list=PLa4FsPdQ51PF-Hbl1L2-YLYXDjIQDQQbA>