

**Education**

- **Chalmers University of Technology** Gothenburg, Sweden  
*PhD candidate* 2009 – present
- **Amirkabir University of Technology-Polytechnic of Iran** Tehran, Iran  
*M.Sc. Bioelectric Engineering* 2005 – 2008
- **Sharif University of Technology** Mashhad, Iran  
*B.Sc. Electrical Engineering* 1999 – 2004

**Awards & Honors**

Ranked 110th in the University Entrance Exam for graduate Studies . . . . . 2005  
*Around 100,000 students participate in the annual nationwide university entrance examination for graduate studies.*

Ranked 31th in the University Entrance Exam for Undergraduate Studies . . . . . 1999  
*Around 500,000 students participate in the annual nationwide university entrance examination for undergraduate studies.*

**Teaching Experience**

- **Data Compression** Chalmers University of Technology  
*Teaching Assistant* Winter, 2008-2011
- **Engineering Mathematics** Sharif University of Technology  
*Teaching Assistant* Spring, 2003
- **Mathematics** 1999–2008  
*Tutor*

**Publications**

1) Journal papers

- 1 Makki, Behrooz; Seifi, Nima; Eriksson, Thomas: 'Multiuser Diversity with Two-Step CSI Feedback. Journal of IET Communications, accepted, 2012.
- 2 Makki, Behrooz; Noori Hosseini, Mona: Some New Refinements of the Standard Autoassociative Neural Network. Journal of Neural Computing and Applications, DOI: 10.1007/s00521-012-0825-5, 2012.
- 3 Makki, Behrooz; Eriksson, Thomas: On the Average Rate of HARQ-Based Quasi-Static Spectrum Sharing Networks. IEEE Transactions on Wireless Communications, 11 (1) pp. 65-77, 2012.

- 4 Makki, Behrooz; Eriksson, Thomas: Multiuser Diversity in Correlated Rayleigh-fading Channels. EURASIP Journal on Wireless Communications and Networking, DOI:10.1186/1687-1499-2012-38, 2012.
- 5 Makki, Behrooz; Eriksson, Thomas: On fairness, power allocation and optimal channel quantization in multiuser systems utilizing multiple feedback bits, IEEE Transaction on Vehicular Technology, submitted, 2012.
- 6 Makki, Behrooz; Eriksson, Thomas: Feedback subsampling in Temporally-Correlated Fading channels, IEEE Transaction on Communications, submitted, 2012.
- 7 Makki, Behrooz; Graell I Amat, Alexandre; Eriksson, Thomas: HARQ Protocols with an Outage Probability constraint, IEEE Transaction on Wireless communications, revision, 2012.
- 8 Makki, Behrooz; Graell I Amat, Alexandre; Eriksson, Thomas: HARQ in Spectrum Sharing Networks, IEEE Communication Letters, accepted, 2012.
- 9 Makki, Behrooz; Graell I Amat, Alexandre; Eriksson, Thomas: On ARQ protocols in Noisy Feedback Conditions, IEEE Transaction on Communications, submitted, 2012.
- 10 Makki, Behrooz; Graell I Amat, Alexandre; Eriksson, Thomas: ARQ Protocols in Fast-Fading Channels, IEEE Communication Letters, submitted, 2012.
- 11 Makki, Behrooz; Eriksson, Thomas: Multiuser Spectrum Sharing Networks using Scheduling, IEEE Transaction on Vehicular Technology, submitted, 2012.
- 12 Makki, Behrooz; Eriksson, Thomas: On the Ergodic Achievable Rates of Spectrum Sharing Networks with Finite Backlogged Primary Users and an Interference Indicator Signal. IEEE Transactions on Wireless Communications, accepted, 2012.
- 13 Makki, Behrooz; Eriksson, Thomas: On Hybrid ARQ and Quantized CSI Feedback Schemes in Quasi-Static Fading Channels. IEEE transaction on communications, accepted, 2012.
- 14 Makki, Behrooz; Eriksson, Thomas: CSI feedback in correlated slow-fading channels. IEEE Communications Letters, 15 pp. 1294 - 1297, 2011.
- 15 Makki, Behrooz; Eriksson, Thomas: On the Capacity of Rayleigh-Fading Correlated Spectrum Sharing Networks. EURASIP Journal on Wireless Communications and Networking, Vol. 2011, No 1, 83, DOI: 10.1186/1687-1499-2011-83, 2011.
- 16 Makki, Behrooz; Beygi, Lotfollah; Eriksson, Thomas: Channel Capacity Bounds in the Presence of Quantized Channel State Information. EURASIP Journal on Wireless Communications and Networking, , pp. Article Number: 495014.
- 17 Makki, Behrooz; Eriksson, Thomas: On the Average Rate of Quasi-Static Fading Channels with ARQ and CSI Feedback . IEEE communication letters, 14 (9) pp. 806-808.
- 18 Makki, Behrooz; Seyedsalehi, Seyedali; Noori Hosseini, Mona; Sadati, Nasser: Unaligned Training for Voice Conversion based on a Local-nonlinear Principal Component Analysis Approach. Neural Computing and Applications, Vol. 19, No. 3, 437-444, DOI: 10.1007/s00521-009-0275-x, 2010.
- 19 Makki, Behrooz; Noori Hosseini, Mona; Sadati, Nasser: Dimension Reduction using Local nonlinear Principal Component Analysis. Accepted at Journal of Engineering Letters, 2009.
- 20 Makki, Behrooz; Noori Hosseini, Mona; Seyedsalehi, Seyed Ali: An evolving neural network to perform dynamic principal component analysis. Journal of Neural Computing and Applications, Vol. 19, No. 3, 459-463, DOI: 10.1007/s00521-009-0328-1, 2010.
- 21 Noori Hosseini, Mona; Makki, Behrooz; Gharibzadeh, Shahriar: Parkinson's Disease Diagnosis using Principal Component Analysis and Classifiers. Neural Computing and Applications, submitted, 2012.

22 Noori Hosseini, Mona; Makki, Behrooz; Modeling Basal Ganglia using Principal Component Analysis. *Neural Computing and Applications*, submitted, 2012.

2) Conference papers

- 1 Makki, Behrooz; Eriksson, Thomas: Interference Free Spectrum Sharing using a Sequential at the Primary Receiver, SPAWC, 2012.
- 2 Makki, Behrooz; Graell I Amat, Alexandre; Eriksson, Thomas: On Optimal Power allocation in Repetition Times Diversity Hybrid Automatic Repeat Request Feedback, WCNC, 2012.
- 3 Makki, Behrooz; Graell I Amat, Alexandre; Eriksson, Thomas: On the Performance of a Noisy HARQ Scheme in Quasi-static and Temporally-correlated Fading channels, GLOBECOM, Submitted, 2012.
- 4 Makki, Behrooz; Li, Jingya; Eriksson, Thomas; Svensson, Tommy: On the Throughput of Coordinated Multi-point Networks using Quantized CSI feedback, VTC, submitted, 2012.
- 5 Makki, Behrooz; Eriksson, Thomas: Capacity bounds of spectrum sharing networks with no channel state information. *European Wireless*, pp. 1-5, 2011.
- 6 Makki, Behrooz; Eriksson, Thomas: Interference management using one bit feedback. *European Wireless*, pp. 1-5, 2011.
- 7 Beygi, Lotfollah; Agrell, Erik; Karlsson, Magnus; Makki, Behrooz: A novel rate allocation method for multilevel coded modulation. *International symposium on information theory*, pp. 1983-1987, 2010.
- 8 Makki, Behrooz; Eriksson, Thomas: Efficient Channel Quality Feedback Signaling using Transform Coding and Bit Allocation. *IEEE 71st Vehicular Technology Conference*, 1 ISBN/ISSN: 978-142442519-8, 2010.
- 9 Makki, Behrooz; Eriksson, Thomas: Data Transmission in the Presence of Noisy Channel State Feedback and Outage Probability Constraint. *International symposium on information theory and applications*, pp. 458 - 463. ISBN/ISSN: 978-142446017-5, 2010.
- 10 Makki, Behrooz; Eriksson, Thomas: Data Transmission in the Presence of Channel State Feedback and Outage Probability Constraint. *IEEE 72nd Vehicular Technology Conference*, ISBN/ISSN: 978-142443574-6, 2010.
- 11 Makki, Behrooz; Noori Hosseini, Mona; Seyedsalehi, Seyedali: Unsupervised Extraction of the Nonlinear Principal Components applied for Voice Conversion. *International Joint Conference on Neural Networks*, 1 (1) pp. 1370-1373, 2008.
- 12 Noori Hosseini, Mona; Gharibzadeh, Shahriar; Gifani, Parisa; Babaei, Sepideh; Makki, Behrooz: Selective Dynamic Principal Component Analysis using Recurrent Neural Networks. *Fourth International Conference on Natural Computation*, 3 pp. 306-310, 2008.
- 13 Makki, Behrooz; Seyedsalehi, Seyedali; Sadati, Nasser; Noori Hosseini, Mona: Voice Conversion Using Nonlinear Principal Component Analysis. *IEEE symposium series on computational intelligence*, 1 (1) pp. 336-339, 2007.
- 14 Makki, Behrooz; Seyedsalehi, Seyedali; Noori Hosseini, Mona; Sadati, Nasser: Principal Component Analysis using Constructive Neural Networks. *International Joint Conference on Neural Networks*, 1 (1) pp. 558-562, 2007.
- 15 Makki, Behrooz; Sadati, Nasser; Noori Hosseini, Mona: Modeling Superconductive Fault Current Limiter using Constructive Neural Networks. *IEEE symposium on Industrial Electronics-ISIE*, 1 (1) pp. 2859-2863, 2007.
- 16 Makki, Behrooz; Sadati, Nasser; Sohani, Mohammad: Simulation of Superconductive Fault Current Limiter (SFCL) Using Modular Neural Networks. *32nd IEEE Annual Conference on Industrial Electronics*, 1 (1) pp. 4415-4419, 2006.

- 17 Ghatan, Zahra; Fallahi, Aria; Makki, Behrooz; Shahabadi, Mahmood; Lucas, Carl; Bahrami, Fatemeh: A Novel 2D Genetic Algorithm for Band Gap Optimization of Two-Dimensional Photonic Crystals. IEEE World Congress on Evolutionary Computation, 1 (1) pp. 3231 - 3235, 2006.
- 18 Sohani, Mohammad; Makki, Behrooz; Sadati, Nasser; Kermani, Kamran; Riazati, Ali: A Neuro-Fuzzy Approach to Diagnosis of Neonatal Jaundice. First IEEE conference on Bio-Inspired Models of Network, 1 (1) pp. 1-4, 2006.

### 3) Thesis and reports

- 1 Makki, Behrooz: Data transmission in the presence of channel state information feedback. Licentiate thesis, Goteborg : Chalmers University of Technology, 2011.
- 2 Makki, Behrooz: Voice conversion using principal component analysis, Master thesis, Tehran: Amir-kabir University of Technology, 2008.
- 3 Makki, Behrooz: Modeling of superconductive fault current limiter, Bachelor thesis: Tehran: Sharif University of Technology, 2005.
- 4 DAmico, Valeria; Halbauer, Hardy; Aronsson, Daniel; Botella, Carmen; Brueck, Stefan; Ciochina, Cristina; Eriksson, Thomas; Fritzsche, Richard; Gesbert, David; Giese, Jochen; Gresset, Nicolas; Lakshmana, Tilak Rajesh; Makki, Behrooz; Melis, Bruno; Abildgaard Olesen, Rikke; Pablo, Maria Luz; Phan Huy, Dinh Thuy; Saur, Stephan; Sternad, Mikael; Svensson, Tommy; Zakhour, Randa; Zirwas, Wolfgang: EU FP7 INFOS-ICT-247223 ARTIST4G, D1.2 Innovative advanced signal processing algorithms for interference avoidance.