

## ATA AKIN RESUME

30 March 17

### Education

Degree	Program	University	Year
BS	Electronics and Telecommunication Engineering	Istanbul Technical University	1993
MS	Biomedical Engineering	Istanbul Technical University	1995
PhD	Biomedical Engineering	Drexel University	1998

### Master Thesis and Advisor :

**Modeling the brain's electrical activity as dipole sources and obtaining the surface potential distribution, Advisor: Prof. Dr. Bingül Yazgan**

### Doctoral Thesis and Advisor :

Noninvasive detection of spike activity of the stomach from cutaneous EGG, Advisor: Prof. Dr. Hun H. Sun

### Professional Experience

Title	Affiliation	Years
Lecturer	School of Vocational Studies, Electronics Program, Bogazici University, Turkey	1994 - 1995
Res. Assist	School of Biomedical Engg. Drexel University	1996 - 1998
Res. Assist Prof	School of Biomedical Engg. Drexel University	1999 - 2001
Assist Prof	Institute of Biomedical Engineering, Bogazici University, Turkey	2002 - 2008
Assoc. Prof	Institute of Biomedical Engineering, Bogazici University, Turkey	2008 - 2013
Assoc. Prof	Department of Genetics and Bioengineering, Istanbul Bilgi University	2013 - 2014
Prof.	Department of Genetics and Bioengineering, Istanbul Bilgi University	2014 -
Dean	Faculty of Engineering and Natural Sciences, Istanbul Bilgi University	2013 -2015
Dean	Faculty of Engineering, Acibadem University	2015
Director	Institute of Natural Sciences (Graduate Studies), Acibadem Univ	2016

### MS Theses Advised

1. Cozmi, Michaela, "The use of dynamic light scattering as a noninvasive early diagnostic tool for cataracts : a feasibility study" Drexel University, Philadelphia, 2001
2. Kim, Sanghyun, "Design of a handheld near-infrared (NIR) imager", Drexel University, Philadelphia, 2001

## 2003

3. Emir, U., "System characterization for a fast optical imager," Bogazici University, 2003,
4. Çakıroğlu, M. "**Functional near infrared spectroscopy as a tool for neuroimaging studies,**" Bogazici University,

## 2004

5. Kacar, B. "Implementation of neurovascular coupling model to hyperammonemia" Bogazici University,
6. Yılmaz, O. "Applications of Microsphere Morphology Dependent Resonances to Biosensor Applications" Bogazici University,
7. Tiveci, S. "**The role of calcium dynamics in brain energy metabolism**", Bogazici University,

## 2005

8. Alsan, S. "**The Stoichiometric coupling between astrocytes and neuron**", Bogazici University,
9. Özcan, K. "Noninvasive monitoring of gastric motility in humans", Bogazici University,
10. Acar, B. "**Implementation of a multi-parameter biomedical monitoring system,**" Bogazici University,
11. Yücel, M. A. "A Biochemical Model For The Interactions Between Tumor Cell Mass And Vascular Epithelial Cells Leading To Angiogenesis" Bogazici University,
12. Fidan, M. "Finite Element modeling of photon migration in tissue" Bogazici University,
13. Yücetaş, A. "Quantification and modeling of muscle metabolism by near infrared spectroscopy", Bogazici University,
14. Karaca, S. "Wireless functional optical imager" Bogazici University

## 2006

15. Erdem, F. D. "**Evaluation of quadriceps muscle endurance with functional near infrared spectroscopy (fNIRS)**" Bogazici University,
16. Bilensoy, D. "Cerebrovascular dynamics in migraineurs measured by fNIRS," Bogazici University,
17. Alptekin, Z, "Measuring changes in cerebral oxygenation and hemodynamics during obstructive sleep apnea by functional near-infrared spectroscopy,"
18. Alkaş, E. "Quantification of the effect of warm up and stretching on the oxygen metabolism using an improved version of a fNIRS device"
19. Şahin, B. "Effect of incident light intensity and source setector seperation on photon migration depth in turbid media"

## 2007

20. Taşdöğen, S. "Integrated Neurovascular Coupling (Nvc) Model: An fNIRS Study On Migraine"

21. Topaloğlu, N. "The effect of methylphenidate on brain hemodynamics of attention-deficit/hyperactivity disorder measured by functional near infrared spectroscopy"
22. Erdoğan, SB. "Evaluation of local oxygen consumption in human flexor digitorum superficialis muscle by near infrared spectroscopy"
23. Karahan, E. "An ARX model approach to fNIRS data acquired from migraine and healthy subjects"

## 2008

24. Kara, E. "Subband filtering of fNIRS data from schizophrenic subjects"
25. Özkerim, B. "Fiber optic based continuous wave functional near infrared spectroscopy system"
26. Kırımlı, C. E., "Working memory performance assessment while monitoring the prefrontal cortex hemodynamics by means of functional near infrared spectroscopy"
27. Nevşehirli, T. D. "Cerebrovascular reactivity of free divers measured with fNIRS"
28. Kubat, E. "Evaluation of the effect of aging on brain asymmetry with functional near infrared spectroscopy,"

## 2009

29. Ünlü, E. "Hemodynamic correlates of mental arithmetic task in migraine",
30. Evcil, K. "Optical probe design for continuous wave near-infrared spectroscopy"
31. Serap, S. "Investigating brain hemodynamics of schizophrenic patients by functional near infrared spectroscopy"
32. Özker, M. "Investigation of neurovascular coupling by synchronous EEG and fNIRS measurements during steady state potentials,"

## 2010

33. Alptekin, Melis. "A mathematical model for cerebrovascular dynamics"
34. Duygu, Aydın. "Effect of diabetes mellitus on gastric motility: an EGG study"
35. Tok, Rüştü Umut, "Yakın kızılattı spektroskopisinde beyin dışı biyolojik dokulardan gelen bozucu etkilerin giderilmesi" Eş-Danışman, İstanbul Teknik Üniversitesi, FBE

## 2011

36. Budur, Emrah. "[An information theoretical approach to functional connectivity in brain](#)"

## 2013

37. Özdemir, Alp. "Sensitivity and specificity of the multi-channel CW-fNIRS for medical purposes"
38. Dalmış, Mehmet Ufuk. "Similarity and consistency analysis of functional connectivity maps"

## 2014

39. Can, Melih. "Analyzing The Efficiency Of Colorimetric Technique In Determining Degree Of Hemolysis Of Stored Blood Non-Invasively" Co-Advisor
40. Tümer, Ayşegül, "Optimization of fNIRS probe geometry to eliminate non-brain contamination" Co-Advisor
41. Şansal, Fırat, "Predictability of cognitive performance based on functional neuroimaging via fNIRS", Co-Advisor

## 2015

42. Hüde Neşe, Hüden, "Functional connectivity during rest and task : a study based on graph theoretical metrics" Co-Advisor

## PhD Theses Advised

### Graduates

Emir, U. "Multimodal Investigation of fMRI and fNIRS derived Breath Hold BOLD Signals with an Expanded Balloon Model," Bogazici University, 2008

Çiftçi, K. "Statistical analysis of cognitive signals measured by fNIRS," Bogazici University 2008

Şayli, Ö. "Muscle Metabolism Measurement in health and disease by fNIRS," Bogazici University, 2009

Yücel, MA. "Role of NO and Co in neurovascular coupling model" Bogazici University 2010

Erdoğan, SB "Analysis of Task-Evoked Systemic Interference in fNIRS Signals: insights from fMRI", Bogazici University, 2014

Aslan, Serdar, "Nonlinear state and parameter estimation of the hemodynamic model using fMRI bold signal" Co-Advisor, 2015

### Pending

Adanali, Pinar, "Novel graph theoretic metrics in evaluating cognitive states from biomedical data" Bogazici University (Expected graduation: 2017)

## Projects

### Continuing

1. "OPTOSİS: An optical orthosis with a BCI in enhancing rehabilitation after stroke" TÜBİTAK NEW INDIGO ERA-NET No: 113E003 (01/03/2013-11/01/2017), **PI**

### Closed

1. "Investigating the functional connectivity of the prefrontal cortex during cognitive tasks with fNIRS and EEG" TÜBİTAK 1001, No: 112E034 (01/09/2012-30/08/2014), **PI**
2. "fMRI based optical tomography analysis platform", BAP 11XD4 (01/04/ 2011-30/09/2013) **PI**
3. "Investigating the neurovascular coupling with synchronous EEG-fNIRS measurements" BAP 10XP4 (30/09/2010-30/09/2012) **PI**
4. "Diagnosis of the disorders in the cerebrovascular autoregulation of migraine patients via fNIRS" BAP 08HX101 (1/09/2008-31/08/2010) **PI**
5. "Development of a NIRS based system for monitoring the oxidative metabolism", DPT 03K120250, (1/01/2005 - 31/12/2007), **PI**
6. "An integrated methods to investigate muscle physiology", BU ArFon 04S101, (1/11/2004 -31/10/2007), **PI**
7. "MR compatible fNIRS system" BU ArFon 04X102D, (1 /02/2004 -31/12/2006), **PI**
8. TÜBİTAK-BDP project, **Co-PI**
9. "Applications of independent component analysis in communications, image processing and geophysics," TUBITAK-CNR Project 102E027, (01/10/2002-30/09/2004), **Co-PI**
10. *Functional Optical Imaging of Brain*, Drexel University, (1/07/2002 - 1/05/2004), **PI**
11. *Synchronized EEG-fNIRS system to quantify cognitive decline and sleep disorders in ADHD patients*, BU ArFon 02S102, (1/09/2002-30/06/2004), **PI**
12. "Optical Imaging Sensor for pilot awareness," Defense Advanced Research Projects Agency (DARPA) Augmented Cognition Program Proje No: N00014-02-1-0524, (1/01/2001 - 31/12/2003), **Co-PI**
13. "LIDAR based breast cancer imaging system" The Office of Naval Research (ONR), Proje No: N00014-01-1-0986, (1/03/2000 - 30/06/2002), **Co-PI**

### Other Administrative Experience:

1. Head of Dept of Physical Education, Bogazici University, 2006- 2009
2. Member of the Student Activities Coordination Committee, Bogazici University 2007-2013
3. Program Director for Graduate program on Medical Informatics and Systems, Bogazici University, 02.2010-2013

### Membership to Professional Societies

1996-	IEEE EMBS
1999-	SPIE
1997-	International Electrogastrography Society
1999-	Optical Society of America
2009	Society of Neuroscience

### Awards :

Name	Granting Institute	Year
Academic Excellence	Bogazici University Foundation	2012
Academic Excellence	Bogazici University Foundation	2011
Academic Excellence	Bogazici University Foundation	2010
Merck Best Paper	Society for Brain Research, Turkey	2010
Academic Excellence	Bogazici University Foundation	2009
Academic Excellence	Bogazici University Foundation	2008
Best Poster (2 <sup>nd</sup> )	44. National Psychiatry Congress	2008
Academic Excellence	Bogazici University Foundation	2007
Paper Award	Society for Turkish Neurologists	2007
Academic Excellence	Bogazici University Foundation	2006
Excellence in Design	Ministry of Education, Science Fair for K12	2005
Academic Excellence	Bogazici University Foundation	2003
Young Alumni Award	Drexel University	2002
1 Million Dollar Club Award	Drexel University	2001

Calhoun Fellowship	Drexel University	1997
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### Course taught at Bogazici University

Course Name
BM 402 Engineering in Medicine (U)
BM 519 Biosensors (G)
BM 554 Modeling of Biological Systems (G)
BM 535 Computational Cell Biology (G)
BM 582 Fundamentals of Photonics (G)
MDSI 513 Intro. To Medical Informatics (G)
MDSI 581 Bioinformatics (G)
MDSI 503 Biomedical Device Technology (G)

### Courses taught at Istanbul Bilgi University

Course Name
BIOE 402 Principles of Biomedical Technologies (U)
BIOE 444 Computational Cell Biology (U)

### Courses taught at Acibadem University

Course Name
ACU 101 Orientation (U)
MEG 101 Introduction to Medical Engineering (U)
ODY 112 Audiometric techniques (Vocational Studies)
MBT Mathematical Biology(G)
MEG 201 Analog Digital Circuits (UG)
MEG 202 Medical Electronics (UG)
MEG 507 Computational Cell Biology (G)

## Publications

- A1. Mehrdad Dadgostar, Seyed Kamaledin Setarehdan, Sohrab Shahzadi, Ata Akin, "Functional connectivity of the PFC via partial correlation," *Optik - International Journal for Light and Electron Optics*, Volume 127, Issue 11, June 2016, Pages 4748-4754
- A2. Zahra Einalou, Keivan Maghooli, Seyed Kamaledin Setarehdan, Ata Akin, "Effective channels in classification and functional connectivity pattern of prefrontal cortex by functional near infrared spectroscopy signals", *Optik-International Journal for Light and Electron Optics*, 127(6), 3271-3275, 2016 **(SCIE)**
- A3. Serdar, A., Ali Taylan, Cemgil, Ata, Akin, "Joint state and parameter estimation of the hemodynamic model by particle smoother expectation maximization method." *Journal of Neural Engineering* 13(4): 046010, 2016.
- A4. Serdar Aslan, A. T. Cemgil, M. Ş. Aslan, B. U. Töreyn, A. Akin, "Joint parameter and state estimation of the hemodynamic model by iterative extended Kalman smoother", *Biomedical Signal Processing and Control*, Volume 24, February 2016, Pages 47-62 **(SCIE)**
- A5. M. Ufuk Dalmış, Ata Akin, "Similarity Analysis of Functional Connectivity with fNIRS," *Journal of Biomedical Optics* 20 (8), 086012-086012, 2015, **(SCIE)**
- A6. Zahra Einalou, Keivan Maghooli, Seyed Kamaledin Setarehdan, Ata Akin, "Functional near Infrared Spectroscopy for Functional Connectivity during Stroop test via Mutual Information." *Advances in BioResearch* 6 (1), 62-67, 2015 **(SCIE)**
- A7. Zahra Einalou, Keyvan Maghooli, Seyed-Kamaledin Setarehdan, Ata Akin, "Functional Near Infrared Spectroscopy to Investigation of Functional Connectivity in Schizophrenia Using Partial Correlation," *Universal Journal of Biomedical Engineering*, 2(1), 5-8, 2014
- A8. Sayli, Omer; Akin, Ata; Cotuk, Hasan Birol, "Correlation analysis between surface electromyography and continuous-wave near-infrared spectroscopy parameters during isometric exercise to volitional fatigue" *Turkish Journal Of Electrical Engineering And Computer Sciences* Volume: 22 Issue: 3 Pages: 780-793, 2014 **(SCIE)**
- A9. S. B. Erdogan, M. A. Yucel, Ata Akin, Analysis of task-evoked systemic interference in fNIRS measurements: insights from fMRI, *NeuroImage*, Volume 87, 15 February 2014, Pages 490-504 (SCIE)
- A10. Ertugrul Burtecin Aksel , Ahu Turkoglu , Ayse Ercan , **Ata Akin**, "Localization of an absorber in a turbid semi-infinite medium by spatially-resolved steady-state diffuse reflectance measurements" *J Biomed. Optics*, Vol. **16**, 086010 (Aug. 22, 2011) **(SCIE)**
- A11. Özgür Öner, **Ata Akin**, Hasan Herken, Mehmet Emin Erdal, Koray Çiftçi, Mustafa Ertan, Duygu Bicer, Bedriye Oncu, Ozlem Hekim Bozkurt, Kerim Münir, Yankı Yazgan, "Association Among SNAP-25 Gene DdeI and MnlI Polymorphisms and Hemodynamic Changes During Methylphenidate Use: A Functional Near-Infrared Spectroscopy Study" *J. Attention Disorders*, 15:628:637, 2011 **(SCIE)**
- A12. Henrik Winther Schyztz, Koray Ciftçi, **Ata Akin**, Messoud Ashina, Hayrunnisa Bolay, "Intact neurovascular coupling during executive function in migraine without aura:

- interictal near-infrared spectroscopy study", *Cephalalgia*, 30 (4): 457-466 2010 **(SCIE)**
- A13. Sergül Aydıre, M. Kivanc Mihçak, R. Koray Çiftçi, **Ata Akin**, "On Temporal Connectivity of PFC Via Gauss-Markov Modeling of fNIRS Signals", *IEEE Trans Biomed* 2010 Mar; 57(3):761-8. **(SCIE)**
- A14. Mustafa Dinler, Demirhan Diracoglu, Erdem Kasikcioglu, Omer Sayli, **Ata Akin**, Cihan Aksoy, Ahmet Oncel and Ender Berker, Effect of aerobic exercise training on oxygen uptake and kinetics in patients with fibromyalgia, *Rheumatol Int*, 30:281-284, 2009, **(SCIE)**
- A15. Meryem A. Yucel, Anna Devor, **Ata Akin**, David Boas, "The possible role of CO2 in producing a post-stimulus CBF and BOLD undershoot", *Frontiers in Neuroenergetics*, 18 November 2009, doi: 10.3389/neuro.14.007.2009
- A16. Omer Sayli , Ertugrul Burtecin Aksel , **Ata Akin**, "Crosstalk and Error Analysis of Fat Layer on Continuous Wave Near-Infrared Spectroscopy Measurements", *J Biomed Optics*, 13(6), 064019-1, 064019-11, 2008 **(SCIE)**
- A17. Koray Çiftçi, Bülent Sankur, Yasemin Kahya, **Ata Akin**, "[Constraining the general linear model for sensible hemodynamic response function waveforms](#)", *Med. & Biol. Engr. & Compt.*, 46:779-787, 2008 **(SCIE)**
- A18. Koray Çiftçi, Bülent Sankur, Yasemin Kahya, **Ata Akin**, "Multilevel Statistical Inference from Functional Near Infrared Spectroscopy Data during Stroop Interference" *IEEE Trans Biomed* (55), 9, 2212-2220, 2008 **(SCIE)**
- A19. U E Emir, C Oztürk, **A Akin**, "Multimodal investigation of fMRI and fNIRS derived breath hold BOLD signals with an expanded balloon model", *PHYSIOL. MEAS.* 29 (1), 49-63, (2008) **(SCIE)**
- A20. Tunahan Çakır, Selma Alsan, Hale Saybaşılı, **Ata Akin**, Kutlu Ö Ülgen, "Reconstruction and flux analysis of coupling between metabolic pathways of astrocytes and neurons: application to cerebral hypoxia" *Theoretical Biology and Medical Modelling*, 4:48, 2007 **(PubMed)**
- A21. Mustafa Dinler, Erdem Kaşıkçioğlu, **Ata Akin**, Ömer Şayli, Cihan Aksoy, Ahmet Öncel, Ender Berker, "Exercise capacity and oxygen recovery half times of skeletal muscle in patients with fibromyalgia," *Rheumatol. Int.* 27, 311-313, 2007 **(SCIE)**
- A22. Ceyhun B. Akgül, **Ata Akin**, Bülent Sankur, "Extraction of cognitive activity-related waveforms from functional near-infrared signals," *Med. & Biol. Compt. & Engr* **2006**, 44, 945-958 **(SCIE)**
- A23. **Ata Akin**, Didem Bilensoy, "Cerebrovascular reactivity to hypercapnia in migraine patients measured with near-infrared spectroscopy" *Brain Research*, (1107), 206-214, 2006 **(SCIE)**
- A24. **Ata Akin**, Didem Bilensoy, Uzay E. Emir, Murat Gülsoy, Selçuk Candansayar and Hayrunnisa Bolay, "Cerebrovascular dynamics in patients with migraine: Near-infrared spectroscopy study" *Neuroscience Letters*, (400), 86-91, 2006 **(SCIE)**

- A25. Erdem Kasikcioglu, Armagan Arslan, Berrin Topcu, Omer Sayli, Hulya Akhan, Huseyin Oflaz, **Ata Akin**, Abidin Kayserilioglu, Mehmet Meric, "Cardiac fatigue and oxygen kinetics after prolonged exercise" *International Journal of Cardiology* (108), 286-288, 2006 **(SCIE)**
- A26. Sinem Tiveci, **A.Akin**, T. Çakır, H. Saybaşılı, K. Ülgen, "Modeling of Calcium dynamics in brain energy metabolism and Alzheimer's disease," *Computational Biology and Chemistry*, 29 (2), 151-162, 2005 **(SCIE)**
- A27. Ceyhun Burak Akgül, Bülent Sankur, **Ata Akin**, "Spectral Analysis of Event-Related Hemodynamic Responses in Functional Near Infrared Spectroscopy", *Journal of Computational Neuroscience* (18) 67-83, 2005. **(SCIE)**
- A28. **A.Akin** and H. H. Sun "Non-invasive measurement of gastric motility with fast Electrogastrogram (fEGG)" *Physiological Measurements*, 23, 505-519, 2002 **(SCIE)**
- A29. **A.Akin**, H. H. Sun, "Time and Frequency Methods for Detecting Spike Activity of Stomach," *Med. & Biol. Engr. & Compt.*, vol. 37, pp. 381-390, 1999 **(SCIE)**

### **B. Proceedings with extended papers :**

- B1. Can OM, Ülgen Y, Akin A. "Use of the color spaces in determining the level of hemolysis in blood under storage." *IFMBE Proceedings*. 2015;45:290-293
- B2. Handan Noyan, Müge Aslankara, Sinem Burcu Erdoğan, Miray Erbey, Deniz Büyükgök, Bilge Togay, Ata Akin, Alp Üçok, Investigating Of Stroop Interference Effect With Functional Near-Infrared (Fnirs) In Healthy Subjects, 20th Annual Meeting of the Organization for Human Brain Mapping, June 8 - 12, 2014, Hamburg, Germany
- B3. S.N. Dumlu, F. Şansal, Y. E. Gökdağ, .S. B. Erdoğan, Ö. Yılmaz, Y. Keskin- Ergen, A. Akin, Detecting Hemodynamic Response during Executive Motor Task and Motor Imagery using fNIRS, 20th Annual Meeting of the Organization for Human Brain Mapping, June 8 - 12, 2014, Hamburg, Germany
- B4. Firat Şansal, Seda Nilgun Dumlu, Sinem Burcu Erdoğan, Handan Noyan, Alp Üçok, Ata Akin, Investigating the Relationship Between Hemodynamic and Behavioral Responses during a Stroop Task using fNIRS, 20th Annual Meeting of the Organization for Human Brain Mapping, June 8 - 12, 2014, Hamburg, Germany
- B5. *Aysegul Tümer, Sinem Burcu Erdoğan, Ata Akin*, Translating fMRI to fNIRS. IEEE EMBS Conference on Neural Engineering, San Diego, CA on 6-8 November 2013, 6TH INTERNATIONAL IEEE/EMBS CONFERENCE ON NEURAL ENGINEERING (NER) Book Series: International IEEE EMBS Conference on Neural Engineering Pages: 493-496, 2013
- B6. Z. Einalou<sup>1</sup>, K. Maghooli<sup>1</sup>, M. Dadgostar<sup>1</sup> , S. K. Setarehdan<sup>2</sup>, H. Y. Keskin-Ergen<sup>3</sup> and A. Akin, '**Functional Near Infrared Spectroscopy to Investigation of Functional Connectivity in Schizophrenia using Partial Correlation**,' ICEE 2013, Tahrán, Iran 2013
- B7. M. Dadgostar<sup>1</sup>, Z. Einalou<sup>1</sup>, S. K. Setarehdan<sup>2</sup>, H. Y. Keskin-Ergen<sup>3</sup> and A. Akin, '**Comparison of Mutual Information and Partial Correlation for Functional Connectivity in fNIRS**,' ICEE 2013, Tahrán, Iran 2013
- B8. Serdar Aslan, Ata Akin, 'Analysis of Stroop Test fNIRS data by use of Singular Value Decomposition' fNIRS 2012, UCL, Londra 2012

- B9. Özdemir A, Keskin-Ergen Y., Bolay H., Akın A, 'High frequency content in blood volume signal is predictive of migraine without aura' fNIRS 2012, UCL, Londra 2012
- B10. M. Dadgostar, Z. Einalou, S. K. Setarehdan, H. Y. Keskin-Ergen, A. Akın, 'Comparison of Denoising Algorithms in fNIRS,' fNIRS 2012, UCL, Londra 2012
- B11. Z. Einalou<sup>1</sup>, M. Dadgostar<sup>1</sup>, K. Maghooli<sup>1</sup>, S. K. Setarehdan<sup>2</sup>, H. Y. Keskin-Ergen<sup>3</sup>, A. Akın, 'Functional Connectivity of the PFC via Partial Correlation Analysis,' fNIRS 2012, UCL, Londra 2012
- B12. Sinem Burcu Erdogan, Turan Deniz Nevsehirli, Yasemin Keskin Ergen, Ali Bayram, Ata Akın, "Analysis of Task-Dependent Scalp Signal Contribution in fNIRS by Use of Reciprocal Information from fMRI," fNIRS 2012, UCL, Londra 2012
- B13. Serdar Aslan, Yasemin Keskin, Ata Akın, "Brain Connectivity via Traffic Engineering Approach," Biomedical Optics Conference 2012, Miami USA, 2012
- B14. Sinem Burcu Erdoğan, Deniz Nevşehirli, Yasemin Keskin-Ergen, Ata Akın, "An fMRI based Method for Characterizing Superficial Layer Contribution to fNIRS Signals ", Biomedical Optics Conference 2012, Miami USA, 2012
- B15. Muge Ozker,Zubeyir Bayraktaroglu, Deniz Nevsehirli, Basri Erdogan, Itir Kasikci, Ahmet Ademoglu, Tamer Demiralp, Ata Akın, Neurovascular Coupling Observed at Upper Alpha and Lower Gamma Bands, Biomedical Optics Conference 2010, Miami USA, 2010
- B16. Çotuk B., Sayli O., Uzun S., Bicer B., Besting A., Pelvan O., Tatar Y., Perlitz V., Akın A., "Spectral And Complexity Measures Of Myoelectric Activity In Relation To Oxygenation Changes During Isometric Contractions", International Workshop And Conference On Human Reflexes, İzmir 11-15 Mayıs 2009.
- B17. Erdoğan, B, Bilgin, C, Turan, B, Akın, A, "Investigation of the effect of playing video games on visual attention and brain hemodynamics with functional near infrared spectroscopy", LEOS Annual Meeting Conference Proceedings, 2009. LEOS '09. IEEE
- B18. Serap, S., Akın, A., "Response Inhibition in Schizophrenia--an event- related fNIRS study" Proceedings of the 4th International IEEE EMBS Conference on Neural Engineering Antalya, Turkey, April 29 - May 2, 2009
- B19. Serap S, Tapsin M, Akın A. Investigating brain hemodynamics of ADHD patients by functional near infrared spectroscopy. Conf Proc IEEE Eng Med Biol Soc. 2009;2009:3028-30.
- B20. Bolay, H.; Schytza, H. W.; Ciftci, K.; Akın, A.; Ashina, M., "Intact neurovascular coupling during executive function in migraine without aura: interictal near-infrared spectroscopy study" 14th Congress of the International-Headache-Society, SEP 10-13, 2009, Philadelphia, PA, Int Headache Soc
- B21. Şayli, Ö., Biçer, B., Uzun, S., Karagözoğlu, C., Akın, A., Çotuk,B., "Fatigue Analysis of FDS Muscle in Shooters using Simultaneous cw-NIRS and SEMG", 11th ICHPER SD ERCE'2009, Antalya.
- B22. Elif Kubat, Ata Akın, "Evaluation of the Effect of Aging on Brain Asymmetry with Functional Near Infrared Spectroscopy", AD/PD 2009, Prag, 2009
- B23. Müge Özker, Zübeyir B, Deniz Nevşehirli, Itir Basri, Ahmet Ademoğlu, Tamer Demiralp, Ata Akın, "Neurovascular Coupling peaks at 12 and 24 Hz for steady state visual evoked potentials", Soc for Neuroscience, Chicago, 2009

- B24. Meryem A. Yücel, Anna Devor, Ata Akin, David A. Boas, "A neurovascular coupling model investigating the relative contributions of metabolism-driven and synapse-driven vasodilation", Poster presentation in Society for Neuroscience, Washington DC, Nov, 2008.
- B25. R.C. Mesquita, M.A. Yücel, A. Akin, A. Devor, T.J. Huppert, D.A. Boas, "Investigating neurovascular coupling in rat brain with optical imaging and physiological modeling" Poster presentation in Optics and Photonics Congress, St. Petersburg, Florida, Mar, 2008.
- B26. Sinem Serap, Hasan Herken, **Ata Akin**; "Hypofrontality in Schizophrenics Evaluated by Near Infrared Spectroscopy", Biomedical Optics Topical Meeting, OSA, St Petersburg, FL, USA, 2008
- B27. Esin Karahan, **Ata Akin**, Hayrünisa Bolay, "ARX Model Approach to Data Acquired from Healthy and Migraine Subjects" Biomedical Optics Topical Meeting, OSA, St Petersburg, FL, USA, 2008
- B28. Ahu N. Turkoglu, Ayse E. Ercan, Omer Sayli, Deniz Nevsehirli, **Ata Akin**; "The Spatial Sensitivity Profile for Various Source Detector Separations in NIR to Eliminate Skin Effect in Brain Imaging", Biomedical Optics Topical Meeting, OSA, St Petersburg, FL, USA, 2008
- B29. Ceyhun E. Kirmli, Suna Sumer, Sinem B. Erodgan, Nermin Topaloglu, **Ata Akin** "Activation of Lateral Prefrontal Cortex during a Complex Cognitive Task", Biomedical Optics Topical Meeting, OSA, St Petersburg, FL, USA, 2008
- B30. Nermin Topaloğlu, Ercan Kara, Esin Karahan, Sinem Burcu Erdoğan, Sinem Serap, Özgür Öner, Bedriye Öncü, Kerim Münir, Koray Çiftçi, **Ata Akin** "The Effect of Methylphenidate on Brain Hemodynamics of Attention-Deficit/Hyperactivity Disorder Measured by Functional Near Infrared Spectroscopy", Biomedical Optics Topical Meeting, OSA, St Petersburg, FL, USA, 2008
- B31. Burcu S. Erdogan, Can A. Yucesoy, Peter A. Huijing, **Ata Akin** "Evaluation of Co-Activation of Antagonistic Muscles Using Near Infrared Spectroscopy", Biomedical Optics Topical Meeting, OSA, St Petersburg, FL, USA, 2008
- B32. Sergül Aydöre, M. Kivanç Mihçak, **Ata Akin** "System Identification of Prefrontal Cortex In the Presence of Cognitive Tasks", Biomedical Optics Topical Meeting, OSA, St Petersburg, FL, USA, 2008
- B33. Koray Çiftçi, Bülent Sankur, Yasemin P. Kahya, Ata Akin, "Functional Clusters In The Prefrontal Cortex During Mental Arithmetic," EUSIPCO. **2008, Lausanne, Switzerland.**
- B34. Uzay E Emir, C. Öztürk, **Ata Akin**, Investigating fMRI and fNIRS signal with balloon model during breath hold task, ISMRM-ESMRMB Joint Annual Meeting in Berlin, Germany. 2007

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