

**EDUCATION** *PhD*, Signal Processing, Carlos III University of Madrid, Spain. Ongoing  
*Thesis Theme*: Filtering methods for high dimensional inference and optimization  
*Supervisor*: Joaquin Miguez.

*MSc*, Telecommunications Engineering, Istanbul Technical University, Turkey. 2012  
*Thesis Title*: A structured sparse decomposition method for audio signals

*BSc*, Telecommunications Engineering, Istanbul Technical University, Turkey. 2010  
*Thesis Title*: Anisotropic diffusion in image processing

- PAPERS**
1. “On the Relationship between Online Optimizers and Recursive Filters”, Ö. D. Akyıldız, V. Elvira, J. Fernandez-Bes, J. Miguez, NIPS Workshop on Optimizing the Optimizers, Barcelona, Spain, 2016.
  2. “Matrix Factorisation with Linear Filters”, Ö. D. Akyıldız, Preprint, [arXiv:1509.02088](https://arxiv.org/abs/1509.02088), 2015.
  3. “Online Matrix Factorization via Broyden Updates”, Ö. D. Akyıldız, Preprint, [arXiv:1506.04389](https://arxiv.org/abs/1506.04389), 2015.
  4. “Primal-Dual Algorithms for Audio Decomposition Using Mixed Norms”, İ. Bayram, Ö. D. Akyıldız, Journal of Signal, Image and Video Processing, 2014.
  5. “An Analysis Prior Based Decomposition Method for Audio Signals”, Ö. D. Akyıldız and İ. Bayram, EUSIPCO 2012.

**WORK EXPERIENCE** *Visiting Research Scientist*, Fraunhofer HHI, Berlin, Germany. August 2017

*Research Associate*, Carlos III University of Madrid, Spain. 2015 –  
with Signal Processing Group (GTS).  
*on stochastic filters; stochastic optimisation; Monte Carlo methods.*

*Research Assistant*, Boğaziçi University, Istanbul, Turkey. 2012 – 2015  
under the supervision of A. Taylan Cemgil with Statistical Inference Group.  
*on Bayesian statistics; machine learning; probabilistic inference.*

*Quantitative Researcher*, algosis inc. 2014 – 2015  
*on financial time series analysis; portfolio optimization; algorithmic trading.*

*Research Assistant*, Istanbul Technical University, Turkey. 2010 – 2012  
*on convex optimisation; machine learning; signal processing.*

**VISITS & CONFERENCES** NIPS Conference, Barcelona, Spain. 5-10 December 2016.

European Workshop on Reinforcement Learning, Barcelona, Spain. 3-4 December 2016.

IEEE Workshop on Statistical Signal Processing, Palma, Spain. 26-29 June 2016.

School of Mathematical Sciences, Queen Mary University of London, UK.  
• 14-24 December 2015 / 1-5 February 2016 / 16-20 May 2016

	Workshop on Sequential Monte Carlo, Imperial College London, UK. 21-23 Dec. 2015	
<b>TEACHING EXPERIENCE</b>	<i>Teaching Assistant</i> (Voluntarily), Boğaziçi University, Istanbul, Turkey. Monte Carlo methods (graduate course) $\times$ 3 Instructor: A. Taylan Cemgil, Dept. of Computer Engineering.	2013 – 2015
	Bayesian statistics and machine learning (graduate course) $\times$ 2 Instructor: A. Taylan Cemgil, Dept. of Computer Engineering.	2013 – 2014
<b>SKILLS</b>	MATLAB, C, Python, LaTeX.	
<b>GRADUATE SCHOOLS</b>	<i>Dobbiaco Summer School on Probabilistic Numerics</i> Dobbiaco, Italy.	19-23 June 2017
	<i>Spring School and Workshop on Volatility Dynamics</i> Bernoulli Center, EPFL, Lausanne, Switzerland.	10-13 April 2017
	<i>Summer School on Uncertainty Quantification for Applied Problems</i> Basque Center for Applied Mathematics, Bilbao, Spain.	4-8 July 2016
	<i>Machine Learning Summer School</i> Max Planck Institute of Intelligent Systems, Tübingen, Germany. (accepted with extremely competitive full financial support.)	13-24 July 2015
	<i>Foundations and Advances in Stochastic Filtering</i> Barcelona, Spain.	22-26 June 2015
	<i>Lectures on Large Deviations and Probability Models</i> Mathematics Village, Şirince, Turkey.	1-8 September 2013
<b>HONORS</b>	• Protel A.Ş. Graduate Fellowship	2010 – 2012
	• Istanbul Metropolitan Municipality Undergraduate Fellowship	2005 – 2008
	• Premiership Undergraduate Fellowship	2005 – 2010
<b>TALKS</b>	<i>Talks that I gave.</i>	
	• A Filtering Approach to Stochastic Optimisation, at UC3M	June 6, 2017
	• Filtering in high-dimensional spaces, at UC3M	November 14, 2016
	• Matrix Factorisation with Linear Filters, at UC3M	October 22, 2015
	• Particle methods for parameter estimation, at Bogazici	March 31, 2015
	• An online EM algorithm and applications, at Bogazici	November 26, 2013
	• Stochastic approximations, at Bogazici	March 26, 2013
	• Learning in Linear Dynamical Systems, at Bogazici	January 21, 2013
<b>OTHER</b>	I play guitar and drums, I like to read philosophy, I maintain a research blog: <a href="http://www.almoststochastic.com">http://www.almoststochastic.com</a> .	