

# Yusuf Yiğit PİLAVCI

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🌐 [Website](#)

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## Education

- 2019 – 2022 **PhD Degree**, Université Grenoble Alpes, GIPSA Lab.  
Thesis title: *Wilson's Algorithm for Randomized Linear Algebra*  
Supervised by Nicolas Tremblay, Simon Barthelmé and Pierre-Olivier Amblard.  
Defended on Nov. 2022.
- 2017 – 2019 **M.Sc. in Computer Science and Engineering**, Politecnico di Milano  
Final Grade: 108.0 / 110  
Thesis: *Random Spanning Forests, Theory and Applications*
- 2012 – 2017 **Bachelor's degree in Electrical and Electronics Engineering** in Middle East Technical University.  
CGPA: 3.79 / 4.00 (10th/375)
- 2014 – 2017 **Minor degree in Computer Engineering** in Middle East Technical University.

## Research Publications

### Journal Articles

- 1 Y. Y. Pilavci, P.-O. Amblard, S. Barthelme, and N. Tremblay, "Graph tikhonov regularization and interpolation via random spanning forests," *IEEE Transactions on Signal and Information Processing over Networks*, 2021.
- 2 M. Turan, Y. Y. Pilavci, I. Ganiyusufoglu, H. Araujo, E. Konukoglu, and M. Sitti, "Sparse-then-dense alignment-based 3d map reconstruction method for endoscopic capsule robots," *Machine Vision and Applications*, vol. 29, no. 2, pp. 345–359, 2018.

### Conference Proceedings

- 1 Y. Y. Pilavci, P.-O. Amblard, S. Barthelme, and N. Tremblay, "Variance Reduction for Inverse Trace Estimation via Random Spanning Forests," in *GRETSI 2022 - XXVIIIème Colloque Francophone de Traitement du Signal et des Images*, Nancy, France, Sep. 2022.
- 2 Y. Pilavci, P.-O. Amblard, S. Barthelmé, and N. Tremblay, "Variance reduction in stochastic methods for large-scale regularised least-squares problems," in *30th European Signal Processing Conference, (EUSIPCO)*, 2022.
- 3 Y. Y. Pilavci, P.-O. Amblard, S. Barthelme, and N. Tremblay, "Smoothing graph signals via random spanning forests," in *ICASSP 2020-2020 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, IEEE, 2020, pp. 5630–5634.
- 4 Y. Y. Pilavci and N. Farrugia, "Spectral graph wavelet transform as feature extractor for machine learning in neuroimaging," in *ICASSP 2019-2019 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, IEEE, 2019, pp. 1140–1144.

### Preprints

- 1 Y. Y. Pilavci, E. T. Guneyi, C. Cengiz, and E. Vural. "Graph domain adaptation with localized graph signal representations." (2019).

## Advance Courses

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- 25-29 Jan. 2021    **Mathematics, Signal Processing and Learning**, CIRM, Marseille/France  
A research school on basics and various advanced topics in machine learning, signal processing, and optimization.
- 04-07 Apr. 2022    **Statlearn'22** Cargèse/France  
A spring school on basics and various advanced topics in statistics and optimization.

## Skills

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- Languages    **Turkish (Maternal), English (Fluent), French (Beginner)**
- Coding      **Python, Julia, C/C++**
- Software    **Matlab, L<sup>A</sup>T<sub>E</sub>X**

## Industrial Experience

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- 2017 Feb. - May.    **Candidate Engineer, ASELSAN, Ankara/Turkey**  
Trained and worked as a software engineer by using C++/C, Unix and Java.
- 2016 Jun. - Jul.    **Summer Intern, ASELSAN, Ankara/Turkey**  
Studied and observed on Real Time Operating Systems on multi-core processors.
- Summer Intern, Huawei, Ankara/Turkey**  
Studied and observed on fiber optical transmission systems and signal modulations.

## References

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You may contact my previous supervisors Nicolas Tremblay, Simon Barthelme, and Pierre-Olivier Amblard, for references via e-mail:

firstname.lastname@gipsa-lab.fr with firstname.lastname@ = pierre-olivier.amblard@, simon.barthelme@, nicolas.tremblay@