# Dr. Eng. Alexandra Korda

## Working Experience

2020 –2023    Post-doc Researcher at University Clinic Luebeck Germany

2018 –2020    Post-doc Researcher at LVR-HHU Duesseldorf, Germany/PRONIA project

2017 –2018    Post-doc at Biomig lab, NTUA, Greece

2017 –2018    Consultant at IRI, Greece

2015 –2017    Data Scientist at EY, Greece

## Education and Training

2019    Neurocourse UK

2019    Teaching activity: Machine learning lecture at the medical department, HHU

2018    Attendant in Autumn School: NeuroMiner toolbox,LMU

2018    Visitor in LMU Psychiatry Clinic, Pronia project

2011-2017    PhD thesis: Analysis and processing of saccades eye movements in healthy subjects, Electrical Engineering, Department of National Technical University, Athens, Greece(Grade:10, 'Excellent')

2013-2015    External Associate at MED.I.S.P. Lab, Department of Biomedical Engineering, Technological University of Athens

2008-2010    MSc in Biomedical Engineering University of Patras - National Technical University of Athens, Greece (8.35 'Very Good', First in the series of graduation)

2002–2008    Applied Mathematics and Physical Sciences National Technical University, Athens, Greece

## Publications

In preparation

1. **A. I. Korda,** A. Ruef , S. Neufang, C. Davatzikos, E. M. Meisenzahl, N. Koutsouleris, "Identification of voxel-based texture abnormalities as new biomarkers for schizophrenia and major depressive patients using layer-wise relevance propagation on deep learning decisions".

2. E. M. Meisenzahl, **A. I. Korda**, et al., "Multivariate First-Episode Schizophrenia classification based on gray matter volume changes between baseline and 1-year follow-up".

3. **Korda A.I.**, Michel C, Schimmelmann BG, Schultze-Lutter F, "Which phenomena are most predictive of attenuated psychotic symptoms and related psychosis-risk criteria in the community?"

4. **Alexandra I. Korda**, George Giannakakis, K. Marias, Pantelis A. Asvestas, George K. Matsopoulos, Errikos M. Ventouras and Nikolaos P. Smyrnis, Recognition of blinks activity patterns during stress conditions using CNN and Markovian analysis, Signals, 2020

Outstanding

1. Christos Chatzikyrkou, Florian G. Scurt, Jan Menne, **Alexandra Korda**, Peter R. Mertens & Hermann Haller (2020) Effect of Gender on Transition of Normo- to Microalbuminuria under Angiotensin Receptor Blocker Therapy in Diabetes, Journal of Diabetes (in press)

2. Christos Chatzikyrkou, Florian G. Scurt, Jan Menne, **Alexandra Korda**, Peter R. Mertens & Hermann Haller (2020) Influence of pre-treatment blood pressure levels on antihypertensive drug benefits in diabetics: the roadmap experience, Blood Pressure, 2020, DOI: 10.1080/08037051.2020.1750298

3. **Alexandra I. Korda,** Mariniki Koliaraki, Pantelis A. Asvestas, George K. Matsopoulos, Errikos M. Ventouras, Periklis Y. Ktonas and Nikolaos Smyrnis, "Discrete states of attention during active visual fixation revealed by Markovian analysis of the time series of intrusive saccades", Neuroscience 339, 385-395, 2016.

4. **Alexandra I. Korda**, Pantelis A. Asvestas, George K. Matsopoulos, Errikos M. Ventouras and Nikolaos P. Smyrnis, 'Automatic Identification of Oculomotor Behavior Using Pattern Recognition Techniques.', International Journal of Computers in Biology and Medicine, pp. 151-162, May 2015.

5. **Alexandra I Korda**, Pantelis A Asvestas, George K Matsopoulos, Errikos M Ventouras, Nikolaos Smyrnis, "Automatic identification of eye movements using the largest lyapunov exponent", Biomedical Signal Processing and Control 41, 10-20, 2018.

6. **A. Korda**, C. Schmidt-Kraepelin, R. Bottlender, M. Jäger, C. Gaser, M. Reiser, N. Koutsouleris, E.M. Meisenzahl, "Machine learning analysis of differential effects of neuroleptic treatment and clinical improvement in firstepisode schizophrenia", European Neuropsychopharmacology 29(1), S132-S133. Link of the publication: https://www.sciencedirect.com/science/article/abs/pii/S0924977X18310915?via%3Dihub

7. K. Flessas, D. Mylonas, G. Panagiotaropoulou , D. Tsopani , **A. Korda** , C. Siettos , A. DI Cagno , I. Evdokimidis and N. Smyrnis , "Judging the judges' performance in rhythmic gymnastics," Medicine and Science in Sports and Exercise, vol. 47, no. 3, pp. 640-648, March 2015.

Proceedings

1. **Korda A.**, Asvestas P., Matsopoulos G., Ventouras E., Cavouras D., Ktonas P., Smyrnis N., "Saccadic movement identification using signal processing techniques". International Conference on Experiments/Process/System Modelling/Simulation/Optimization, Athens, Greece, July 2011. (Oral Presentation).

2. **Αλεξάνδρα Ι. Κορδά,** Παντελής Α. Ασβεστάς, Γιώργος Κ. Ματσόπουλος, Ερρίκος Μ. Βέντουρας,

Περικλής Γ. Κτώνας, Νικόλαος Π. Σμυρνής, 'Ανίχνευση Σακκαδικών κινήσεων με χρήση Νευρωνικών Δικτύων', 4ᵒ Πανελλήνιο Συνέδριο Βιοιατρικής Τεχνολογίας, Αθήνα, Ελλάδα, Ιανουάριος 2012.

3. P. A. Asvestas, **A. Korda**, I. Karanasiou, S. Kostopoulos, G.K. Matsopoulos and E.M. Ventouras, 'Analysis of Brain Signals for the Discrimination of Observations of Correct and Incorrect Actions.', International Journal of Signal Processing Systems, Vol. 3, No 2, December 2015.(Oral presentation at 2014 International Conference on Digital Signal Processing, Milan, Italy, November 2014)

4. P. Asvestas, **A. Korda**, S. Kostopoulos, I. Karanasiou, G.K. Matsopoulos and E.M. Ventouras, 'Identification of Observations of Correct or Incorrect Actions Using Second Order Statistical Features of Event Related Potentials.', International Conference on Bioinspired Systems and Signal Processing, Lisbon, Portugal, January, 2015. (Conference Speaker)

5. P. Asvestas, **A. Korda**, S. Kostopoulos, V. Korfiatis, I. Karanasio, I. Kalatzis, E.M. Ventouras and G.K. Matsopoulos, 'Classifications Systems For Identification Of Error Observations Using Electroencephalographic Signals', 6ᵒ Πανελλήνιο Συνέδριο Βιοϊατρικής Τεχνολογίας, Αθήνα, Ελλάδα, Μάιος 2015.

6. P. Asvestas, **A. Korda**, S. Kostopoulos, I. Karanasiou, A. Ouzounoglou, K. Sidiropoulos, E.C. Ventouras, G. Matsopoulos, "Use of Genetic Algorithm for the Selection of EEG Features", 4th International Conference on Mathematical Modelling in Physical Sciences, Mykonos, Greece, June 5-8, 2015.

7. P. Asvestas, E.C. Ventouras, S. Kostopoulos, K. Sidiropoulos, V. Korfiatis, **A. Korda**, A. Uzunoglu, I. Karanasiou, I. Kalatzis and G. Matsopoulos, "Software Platform for Managing the Classification of Error-Related Potentials of Observers", 4th International Conference on Mathematical Modelling in Physical Sciences, Mykonos, Greece, June 5-8, 2015.