# Grigorios Papageorgiou

Biostatistician — Postdoctoral Researcher

g.papageorgiou@erasmusmc.nl

https://gregpapageorgiou.com/

## **Professional Experience**

2021 - Present	Postdoctoral Researcher in Biostatistics Department of Biostatistics, Erasmus University Medical Center
2021 - Present	Methodological & Statistical Assessor College ter Beoordeling van Geneesmiddelen
2019 - Present	Statistical Consultant Department of Internal Medicine, Erasmus University Medical Center
2015 - Present	Statistical Consultant Consultation centre for Patient-Oriented research, Erasmus University Medical Center
2019 - 2021	<b>Education Assistant</b> NIHES Innovation Team, Erasmus University Medical Center
2015 - 2021	PhD Researcher in Biostatistics Department of Biostatistics, Erasmus University Medical Center
2015 - 2019	Statistical Consultant Department of Cardio-Thoracic Surgery, Erasmus University Medical Center
2015	R Tutor LStat, KU LEUVEN, VIB Intensive hands-on course: "Introduction to R"
2014	Statistical Consultant LStat, KU LEUVEN Project on Applied Longitudinal Data Analysis

#### **Education**

2015 - 2021 PhD in Biostatistics

Department of Biostatistics, Erasmus University Medical Center

advisor: Prof. Dimitris Rizopoulos

2013 - 2015 MSc in Statistics

Katholieke Universiteit Leuven, Leuven, Belgium

2006 - 2011 BSc in Statistics and Insurance Science

University of Piraeus, Piraeus, Greece

#### **Research Interests**

Join Models for Longitudinal and Time-to-Event Data

Mixed-effects models

Survival Analysis

**Multi-state Models** 

**Dynamic Prediction** 

**Missing Data** 

### Statistical Software Development

JMbayes2 co-developer

Extended Joint Models for Longitudinal and Survival Data

JMbayes co-developer

Fits joint models for continuous longitudinal responses and time-to-event data. I developed functionality for dynamic prediction of survival from multivariate joint models. I also developed functionality for joint models for multivariate longitudnial data and

multi-state processes.

rQuote Developer

Extracts quotes from the web with web-scraping based on topics

of interest.

#### **International Conferences**

2020 41st ISCB, Krakow, Poland

An Alternative Characterization of Missing at Random in Shared

Parameter Models

2019 40th ISCB, Leuven, Belgium

Feature selection of longitudinal biomarkers in multivariate joint

models for longitudinal and multi-state processes

2018 29th IBS, Barcelona, Spain

Feature selection of longitudinal biomarkers in multivariate joint

models for longitudinal and multi-state processes

2017 38th ISCB, Vigo, Spain

Individualized Dynamic Prediction of Survival with the Presence

of Intermediate Events

2017 9th EMR, Thessaloniki, Greece

Individualized Dynamic Prediction of Survival with the Presence

of Intermediate Events

## Peer Review for International Scientific Journals

**Biometrics** 

Journal of Statistical Software

**Biometrical Journal** 

Statistics in Medicine

Statistical Methods in Medical Research

Statistica Sinica

**Pharmaceutical Statistics** 

Diagnostic and Prognostic Research

#### **Committees**

2022 - 2025 IBC: Awards Fund Committee

#### **Programming Languages & Statistical Software Skills**

Fluent R, C++, Markdown, LaTeX

Intermediate SAS, Stan, HTML, CSS

#### List of Publications

- 1. S. Geurts, C. Brunborg, Papageorgiou, G., M.A. Ikram, and M. Kavousi. "Subclinical Measures of Peripheral Atherosclerosis and the Risk of New-Onset Atrial Fibrillation in the General Population: the Rotterdam Study". In: Journal of the American Heart Association 11.1 (2022). cited By 0. doi: 10.1161/JAHA.121.023967. URL: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85123289845&doi=10.1161%2fJAHA.121.023967&partnerID=40&md5=4e006302156222352528d7e4bec3ae7d.
- 2. A. Gharbharan, C.C.E. Jordans, C. GeurtsvanKessel, J.G. den Hollander, F. Karim, F.P.N. Mollema, J.E. Stalenhoef Schukken, A. Dofferhoff, I. Ludwig, A. Koster, R.-J. Hassing, J.C. Bos, G.R. van Pottelberge, I.N. Vlasveld, H.S.M. Ammerlaan, E.M. van Leeuwen Segarceanu, J. Miedema, M. van der Eerden, T.J. Schrama, Papageorgiou, G., P. te Boekhorst, F.H. Swaneveld, Y.M. Mueller, M.W.J. Schreurs, J.J.A. van Kampen, B. Rockx, N.M.A. Okba, P.D. Katsikis, M.P.G. Koopmans, B.L. Haagmans, C. Rokx, and B.J.A. Rijnders. "Effects of potent neutralizing antibodies from convalescent plasma in patients hospitalized for severe SARS-CoV-2 infection". In: Nature Communications 12.1 (2021). cited By 43. doi: 10.1038/s41467-021-23469-2. url: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85106978482&doi=10.1038%2fs41467-021-23469-2&partnerID=40&md5=afd6e065d3bcec9034b25387c624b27f.
- 3. L. Horn, L. De Munter, <a href="Papageorgiou">Papageorgiou</a>, G., K.W.W. Lansink, M.A.C. De Jongh, and M.C.W. Joosen. "Association of longitudinal changes in patient-reported health status with return to work in the first 2 years after traumatic injury: A prospective cohort study in the Netherlands". In: <a href="BMJ Open 11.12">BMJ Open 11.12</a> (2021). cited By 0. DOI: 10.1136/bmjopen-2021-055593. URL: <a href="https://www.scopus.com/inward/record.uri?eid=2-s2.0-85122616021&doi=10.1136%2fbmjopen-2021-055593&partnerID=40&md5=8e68887bbe8bc8562a990df54b2e8f93">BE868887bbe8bc8562a990df54b2e8f93</a>.
- 4. E. Huizing, M.A. Schreve, S. Kum, <a href="Papageorgiou">Papageorgiou</a>, G., J.-P.P.M. de Vries, G.J. de Borst, and Ç. Ünlü. "Development of a Prediction Model for the Occurrence of Stenosis or Occlusion after Percutaneous Deep Venous Arterialization". In: <a href="Diagnostics">Diagnostics</a> 11.6 (2021). cited By 0. DOI: 10.3390/diagnostics11061008. URL: <a href="https://www.scopus.com/inward/record.uri?eid=2-s2.0-85108222077&doi=10.3390%2fdiagnostics11061008&partnerID=40&md5=3c0260a7a13d139d45d3232f05518345">Data of the Diagnostics of Control of the Occurrence of Stenosis or Occlusion after Percutaneous Deep Venous Arterialization". In: <a href="Diagnostics11.66">Diagnostics 11.66</a> (2021). cited By 0. DOI: 10.3390/diagnostics11061008. URL: <a href="https://www.scopus.com/inward/record.uri?eid=2-s2.0-85108222077&doi=10.3390%2fdiagnostics11061008">Diagnostics11061008</a> <a href="https://www.scopus.com/inward/record.uri?eid=2-s2.0-85108222077&doi=10.3390%2fdiagnostic
- 5. S. Noten, R.J.G. van den Berg-Emons, D.E. Thorpe, P.C. Heyn, C.M. Marciniak, P.G. McPhee, R.P. Lamberts, N.G. Langerak, O. Verschuren, T. Salokivi, K.M. Morrison, M.D. Peterson, C. Limsakul, H.J. Stam, Papageorgiou, G., J. Versmissen, and W.M.A. Van Der Slot. "Blood pressure in adults with cerebral palsy: a systematic review and meta-analysis of individual participant data". In: Journal of hypertension 39.10 (2021). cited By 4, pp. 1942–1955. DOI: 10.1097/HJH.00000000000002912. URL: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85115701779&doi=10.1097%2fHJH.00000000000002912&partnerID=40&md5=683e48631acb8f856197e7af83b45859.
- 6. J.L.R. Romeo, <a href="Papageorgiou">Papageorgiou</a>, G., F.F.D. Da Costa, H.H. Sievers, A.J.J.C. Bogers, I. El-Hamamsy, P.D. Skillington, R. Wynne, S. Mastrobuoni, G. El Khoury, J.J.M. Takkenberg, and M.M. Mokhles. "Long-term Clinical and Echocardiographic Outcomes in Young and Middle-aged Adults Undergoing the Ross Procedure". In: <a href="JAMA Cardiology">JAMA Cardiology</a> 6.5 (2021). cited By 7, pp. 539–548. DOI: 10.1001/jamacardio.2020.7434. URL: <a href="https://www.scopus.com/inward/record.uri?eid=2-s2.0-85105748521&doi=10.1001%2fjamacardio.2020.7434&partnerID=40&md5=1f57c28274c119d539239922f7b0f0ff">papageorgiou</a>, <a href="https://www.scopus.com/inward/record.uri?eid=2-s2.0-85105748521&doi=10.1001%2fjamacardio.2020.7434&partnerID=40&md5=1f57c28274c119d539239922f7b0f0ff">JAMA Cardiology</a> 6.5 (2021). cited By 7, pp. 539–548. DOI: 10.1001/jamacardio.2020.7434&partnerID=40&md5=1f57c28274c119d539239922f7b0f0ff.
- 7. A. Schauwvlieghe, A. Dunbar, E. Storme, A. Vlak, R. Aerts, J. Maertens, B. Sciot, T. Van Der Wel, Papageorgiou, G., I. Moors, J.J. Cornelissen, B.J.A. Rijnders, and T. Mercier. "Stopping antibiotic therapy after 72 h in patients with febrile neutropenia following intensive chemotherapy for AML/MDS (safe study): A retrospective comparative cohort study". In: EClinicalMedicine 35 (2021). cited By 1. DOI: 10.1016/j.eclinm.2021.100855. URL: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85105559088&doi=10.1016%2fj.eclinm.2021.100855&partnerID=40&md5=81ff0c601ef2659c3c325b502aa2f5e5.

- 8. W.M.A. van der Slot, J.L. Benner, L. Brunton, J.M. Engel, P. Gallien, S.R. Hilberink, G. Månum, P. Morgan, A. Opheim, I. Riquelme, E. Rodby-Bousquet, T.T. Şimşek, D.E. Thorpe, R.J.G. van den Berg-Emons, L.K. Vogtle, Papageorgiou, G., and M.E. Roebroeck. "Pain in adults with cerebral palsy: A systematic review and meta-analysis of individual participant data". In: Annals of Physical and Rehabilitation Medicine 64.3 (2021). cited By 20. doi: 10.1016/j.rehab.2019.12.011. url: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85082705734&doi=10.1016%2fj.rehab.2019.12.011&partnerID=40&md5=598f1e3a75bf03d78081bf3931c13842.
- 9. Papageorgiou, G. and D. Rizopoulos. "An alternative characterization of MAR in shared parameter models for incomplete longitudinal data and its utilization for sensitivity analysis". In: Statistical Modelling 21.1-2 (2021). cited By 0, pp. 95–114. doi: 10.1177/1471082X20927114. url: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85086223568&doi=10.1177%2f1471082X20927114&partnerID=40&md5=862e4a9f14af5cc7b89847102c8623de.
- 10. D. Abjigitova, M.M. Mokhles, Papageorgiou, G., J.A. Bekkers, and A.J.J.C. Bogers. "Outcomes of different aortic arch replacement techniques". In: Journal of Cardiac Surgery 35.2 (2020). cited By 1, pp. 367–374. DOI: 10.1111/jocs.14386. URL: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85076199815&doi=10.1111%2fjocs.14386&partnerID=40&md5=adb72cb15ae110e57378969e262f1a9f.
- 11. J.L.R. Romeo, <a href="Papageorgiou">Papageorgiou</a>, G., J.J.M. Takkenberg, J.W. Roos-Hesselink, W.J. van Leeuwen, J.M.J. Cornette, D. Rizopoulos, A.J.J.C. Bogers, and M.M. Mokhles. "Influence of pregnancy on long-term durability of allografts in right ventricular outflow tract". In: <a href="Journal of Thoracic and Cardiovascular Surgery">Journal of Thoracic and Cardiovascular Surgery</a> 159.4 (2020). cited By 1, 1508–1516.e1. DOI: 10.1016/j.jtcvs.2019.08.083. URL: <a href="https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073739271&doi=10.1016%2fj.jtcvs.2019.08.083&partnerID=40&md5=ece1c413190e459a7318d0fb5498b284">Papageorgiou</a>, J.J.M. Takkenberg, J.W. Roos-Hesselink, W.J. van Leeuwen, J.M.J. Cornette, D. Rizopoulos, A.J.J.C. Bogers, and M.M. Mokhles. "Influence of pregnancy on long-term durability of allografts in right ventricular outflow tract". In: <a href="Journal of Thoracic and Cardiovascular Surgery">Journal of Thoracic and Cardiovascular Surgery</a> 159.4 (2020). cited By 1, 1508–1516.e1. DOI: 10.1016/j.jtcvs.2019.08.083. URL: <a href="https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073739271&doi=10.1016%2fj.jtcvs.2019.08.083&partnerID=40&md5=ece1c413190e459a7318d0fb5498b284</a>.
- 12. V. Wester, S. de Groot, T. Kanters, L. Wagner, J. Ardesch, I. Corro Ramos, M.-J. Enders-Slegers, M. de Ruiter, S. le Cessie, J. Los, **Papageorgiou, G.**, J. van Exel, and M. Versteegh. "Evaluating the Effectiveness and Cost-Effectiveness of Seizure Dogs in Persons With Medically Refractory Epilepsy in the Netherlands: Study Protocol for a Stepped Wedge Randomized Controlled Trial (EPISODE)". In: *Frontiers in Neurology* 11 (2020). cited By 2. DOI: 10.3389/fneur.2020.00003. URL: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85079116672&doi=10.3389%2ffneur.2020.00003&partnerID=40&md5=2b60a8bebbcf0b498fcb333835a6a833.
- 13. J.M. Colijn et al. "Increased High-Density Lipoprotein Levels Associated with Age-Related Macular Degeneration: Evidence from the EYE-RISK and European Eye Epidemiology Consortia". In: Ophthalmology 126.3 (2019). cited By 47, pp. 393–406. DOI: 10.1016/j.ophtha.2018.09.045. URL: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85057508316&doi=10.1016%2fj.ophtha.2018.09.045&partnerID=40&md5=2f8ab2d0728a2a26c6d98d4a8b7bc062.
- 14. J.R.G. Etnel, S.A. Huygens, P. Grashuis, B. Pekbay, <a href="Papageorgiou">Papageorgiou</a>, J.W. Roos Hesselink, A.J.J.C. Bogers, and J.J.M. Takkenberg. "Bioprosthetic aortic valve replacement in nonelderly adults: A systematic review, meta-analysis, and microsimulation". In: Circulation: Cardiovascular Quality and Outcomes 12.2 (2019). cited By 24. DOI: 10.1161/CIRCOUTCOMES.118.005481. URL: <a href="https://www.scopus.com/inward/record.uri?eid=2-s2.0-85061580788&doi=10.1161%2fCIRCOUTCOMES.118.005481&partnerID=40&md5=85aebbd7cb3fab8f3bdb53b05ae35c1d.">Bogers, and J.J.M. Takkenberg. "Bioprosthetic aortic valve replacement in nonelderly adults: A systematic review, meta-analysis, and microsimulation". In: Circulation: Cardiovascular Quality and Outcomes 12.2 (2019). cited by 24. DOI: 10.1161/CIRCOUTCOMES.118.005481. URL: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85061580788&doi=10.1161%2fCIRCOUTCOMES.118.005481&partnerID=40&md5=85aebbd7cb3fab8f3bdb53b05ae35c1d."
- 15. W.G. Knol, Papageorgiou, G., and M.M. Mokhles. "What to do with the equipoise?" In: European Heart Journal 40.22 (2019). cited By 2, p. 1815. DOI: 10.1093/eurheartj/ehz176. URL: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85067370231&doi=10.1093%2feurheartj%2fehz176&partnerID=40&md5=98cea52a2b0374926edc2c9f48616c98.
- 16. S.C. Rigters, M.P. Van Der Schroeff, Papageorgiou, G., R.J. Baatenburg De Jong, and A. Goedegebure. "Progression of hearing loss in the aging population: Repeated auditory measurements in the Rotterdam study". In: Audiology and Neurotology 23.5 (2019). cited By 17, pp. 290–297. DOI: 10.1159/000492203. URL: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85058811295&doi=10.1159%2f000492203&partnerID=40&md5=fc48ae7d44a13771c08c23f465d0fe28.
- 17. Papageorgiou, G., K. Mauff, A. Tomer, and D. Rizopoulos. "An overview of joint modeling of time-to-event and longitudinal outcomes". In: *Annual Review of Statistics and Its Application* 6 (2019). cited By 28, pp. 223–240. DOI: 10.1146/annurev-statistics-030718-105048. URL: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062828660&doi=10.1146%2fannurev-statistics-030718-105048&partnerID=40&md5=4f7f3b6c7c569587f688c813c4e01a03.

- 18. Papageorgiou, G., M.M. Mokhles, J.J.M. Takkenberg, and D. Rizopoulos. "Individualized dynamic prediction of survival with the presence of intermediate events". In: Statistics in Medicine 38.30 (2019). cited By 5, pp. 5623–5640. DOI: 10.1002/sim.8387. URL: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074730785&doi=10.1002%2fsim.8387&partnerID=40&md5=f1d10c9e2a3c0f549172b45fb967fc61.
- 19. J.R.G. Etnel, P. Grashuis, S.A. Huygens, B. Pekbay, <a href="Papageorgiou">Papageorgiou</a>, G., W.A. Helbing, J.W. Roos-Hesselink, A.J.J.C. Bogers, M.M. Mokhles, and J.J.M. Takkenberg. "The Ross Procedure: A Systematic Review, Meta-Analysis, and Microsimulation". In: Circulation. Cardiovascular quality and outcomes 11.12 (2018). cited By 32, e004748. DOI: 10.1161/CIRCOUTCOMES.118.004748. URL: <a href="https://www.scopus.com/inward/record.uri?eid=2-s2.0-85058902578&doi=10.1161%2fCIRCOUTCOMES.118.004748&partnerID=40&md5=c6cdde68b93bf7f21b1543d5a54f66d7">https://www.scopus.com/inward/record.uri?eid=2-s2.0-85058902578&doi=10.1161%2fCIRCOUTCOMES.118.004748&partnerID=40&md5=c6cdde68b93bf7f21b1543d5a54f66d7</a>.
- 20. S.J. Head, M. Milojevic, J. Daemen, J.-M. Ahn, E. Boersma, E.H. Christiansen, M.J. Domanski, M.E. Farkouh, M. Flather, V. Fuster, M.A. Hlatky, N.R. Holm, W.A. Hueb, M. Kamalesh, Y.-H. Kim, T. Mäkikallio, F.W. Mohr, Papageorgiou, G., S.-J. Park, A.E. Rodriguez, J.F. Sabik, R.H. Stables, G.W. Stone, P.W. Serruys, and A.P. Kappetein. "Mortality after coronary artery bypass grafting versus percutaneous coronary intervention with stenting for coronary artery disease: a pooled analysis of individual patient data". In: *The Lancet* 391.10124 (2018). cited By 290, pp. 939–948. doi: 10.1016/S0140-6736(18)30423-9. url: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85042353444&doi=10.1016%2fS0140-6736%2818%2930423-9&partnerID=40&md5=bf8221175fd82cbed4a013c8d377e494.
- 21. S.J. Head, M. Milojevic, J. Daemen, J.-M. Ahn, E. Boersma, E.H. Christiansen, M.J. Domanski, M.E. Farkouh, M. Flather, V. Fuster, M.A. Hlatky, N.R. Holm, W.A. Hueb, M. Kamalesh, Y.-H. Kim, T. Mäkikallio, F.W. Mohr, Papageorgiou, G., S.-J. Park, A.E. Rodriguez, J.F. Sabik, R.H. Stables, G.W. Stone, P.W. Serruys, and A.P. Kappetein. "Stroke Rates Following Surgical Versus Percutaneous Coronary Revascularization". In: Journal of the American College of Cardiology 72.4 (2018). cited By 60, pp. 386–398. DOI: 10.1016/j.jacc.2018.04.071. URL: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85049729058&doi=10.1016%2fj.jacc.2018.04.071&partnerID=40&md5=0be6de9e1009e8f862fe2495903576e6.
- 22. S.J. Head, **Papageorgiou, G.**, M. Milojevic, G.W. Stone, and A.P. Kappetein. "Interpretation of results of pooled analysis of individual patient data Authors' reply". In: *The Lancet* 392.10150 (2018). cited By 6, p. 818. DOI: 10.1016/S0140-6736(18)31779-3. URL: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85052896068&doi=10.1016%2fS0140-6736%2818%2931779-3&partnerID=40&md5=b85ac08b75088c05c77b194f71c433ab.
- 23. J.L.R. Romeo, Papageorgiou, G., J.J.M. Takkenberg, and M.M. Mokhles. "The right time-dependent statistics: this is the moment". In: European journal of cardio-thoracic surgery: official journal of the European Association for Cardio-thoracic Surgery 54.6 (2018). cited By 0, p. 1145. DOI: 10.1093/ejcts/ezy184. URL: https://www.scopus.com/inward/record.uri?eid=2-s2.0-85056579193&doi=10.1093%2fejcts%2fezy184&partnerID=40&md5=865c8cd660cbf1c07feb7d19cbad08c0.
- 24. J.L.R. Romeo, <a href="Papageorgiou">Papageorgiou</a>, P.C. Van De Woestijne, J.J.M. Takkenberg, L.E.H. Westenberg, I. Van Beynum, A.J.J.C. Bogers, and M.M. Mokhles. "Downsized cryopreserved and standard-sized allografts for right ventricular outflow tract reconstruction in children: Long-Term single-institutional experience". In: <a href="Interactive Cardiovascular and Thoracic Surgery">Interactive Cardiovascular and Thoracic Surgery</a> 27.2 (2018). cited By 3, pp. 257–263. DOI: 10.1093/icvts/ivy057. URL: <a href="https://www.scopus.com/inward/record.uri?eid=2-s2.0-85055266960&doi=10.1093%2ficvts%2fivy057&partnerID=40&md5=b4969f4e357bf9e3e9e4651fefeb4b3c">https://www.scopus.com/inward/record.uri?eid=2-s2.0-85055266960&doi=10.1093%2ficvts%2fivy057&partnerID=40&md5=b4969f4e357bf9e3e9e4651fefeb4b3c</a>.
- 25. Papageorgiou, G., S.W. Grant, J.J.M. Takkenberg, and M.M. Mokhles. "Statistical primer: How to deal with missing data in scientific research?" In: Interactive Cardiovascular and Thoracic Surgery 27.2 (2018). cited By 33, pp. 153–158. doi: 10.1093/icvts/ivy102. URL: https://www.scopus.com/inward/record.uri?eid=2-s2. 0-85055501950&doi=10.1093%2ficvts%2fivy102&partnerID=40&md5=77475d0dbe9f25dd6c5021dd2c2b9c74.