Maïlis Amico

Assistant-Professor of Statistics

Last updated : 3 novembre 2025

Positions

Current

2024–Present **Assistant-Professor of Statistics (Chaire de Professeur Junior - tenure track)**, *Medecine faculty and Desbrest Institute of Epidemiology and Public Health (UMR U1318 Inserm), University of Montpellier*, France

Past

2022–2024 **Biostatistician**, *Clinical Research and Epidemiology Unit, Montpellier University Hospital*, Montpellier, France

2021–2022 **Attachée Temporaire d'Enseignement et de Recherche (A.T.E.R.)**, *Applied Mathematics and Computer Science Departement, UFR 6, University of Montpellier Paul Valery*, Montpellier, France

2019–2021 **Biostatistician**, *Clinical Research Unit, Nestlé Research Center*, Lausanne, Switzerland

2013–2018 **Research Assistant**, *Institute of Statistics, Biostatistics and Acturial Sciences (ISBA), Université catholique de Louvain et Research Center for Operations Research and Statistics (ORSTAT), Katholieke Universiteit Leuven*, Louvain-la-Neuve et Leuven, Belgium

2013–2016 **Teaching Assistant**, *Louvain School of Statistics, Biostatistics and Actual Sciences (LSBA), Université catholique de Louvain*, Louvain-la-Neuve, Belgium

2013–2016 **Statistical Consultant**, *Plateforme technologique de Support en Métholodologie et Calcul Statistique (SMCS), Université catholique de Louvain*, Louvain-la-Neuve, Belgium

Education

2013–2018 **PhD in Sciences (Statistics)**, *Université catholique de Louvain and Katholieke Universiteit Leuven*, Belgium

Under the supervision of Profs. Ingrid Van Keilegom et Catherine Legrand, defended on november 9, 2018. Thesis title : "*Cure models in survival analysis: from modelling to prediction assessment of the cure fraction.*"

2011–2013 **Master's degree in Statistics : Biostatistics**, *Université catholique de Louvain*, Belgium

Master thesis title : "*On the introduction of cured observations in survival analysis : a literature review on cure models*", uder the supervision of Profs. Catherine Legrand et Ingrid Van Keilegom.

2009– 2010 **University degree (D.U.) in Economics and Management**, *University of Auvergne*, Clermont-Ferrand, France

Exchange program with the University of Oklahoma (U.S.A) Between August and December 2009. Courses followed : human geography, demography and statistics.

2006–2008 **Dual Master's degree in Developement Economics**, *University of Auvergne*, Clermont-Ferrand, France

2005–2008 **Magistère Development Economics**, *University of Auvergne*, Clermont-Ferrand, France

2003–2006 **Bachelor's degree in Economics**, *University of Montpellier (1st & 2nd years) and University of Auvergne (3rd year)*, Montpellier and Clermont-Ferrand, France

Publications

Peer-reviewed journals

10. Canaud, B., Davenport, D., Morena-Carrere, M., **Amico, M.**, Molinari, N., and Cristol, J-P. (2025). Continuous beta-2 microglobulin–based clearance highlights superiority of high-Dose HDF over high-flux HD in predicting outcomes, *Scientific Report*, **15**, online.

9. Desmyttere, G., Ralandison, S., Dusfour, G., Moulis, L., **Amico, M.**, Julia, M., Pers, Y-M., and Jorgensen, C. (2025). A combined analysis of spinal mobility and gait spatiotemporal parameters in axial spondyloarthritis using wearable sensors, *Clinical Biomechanics*, **126**, online.

8. Savvala, N., **Amico, M.**, Joumaa, S., Jaussent, A. Silvestri, M., Lefebvre, P. Khamajeet, A., Picot M-C., Galtier, F., and Nocca, D.(2024). Nissen sleeve gastrectomy : 5-year follow-up results, *Surgery for Obesity and Related Diseases*, **21** : 3, 311–318.

7. Saour, M., Blin, C., Zeroual, N., Mourad, M., **Amico, M.**, Gaudard, P., Picot, M-C., and Colson, P. (2024). Impact of a bundle of care (intravenous iron, erythropoietin and transfusion metabolic adjustment) on post-operative transfusion incidence in cardiac surgery : a single-centre, randomised, open-label, parallel-group controlled pilot trial. *The Lancet Regional Health Europe*, **43**, Published online.

6. F. Huet, Mariano-Goulart, D., Aguilhon, S., Delbaere, Q., Lacampagne A., Fauconnier , J., Leclercq, F., Macia, j-C., Akodad, M., Jammoul, N., Prunier, F., Mewton, N., Angoulvant, D., Lozza, C., Soltani, S., Rodier, A., Grandemange, S., Anne-Marie Dupuy, A-M., Cristol, J-P., **Amico, M.**, Nagot, N., Roubille, F. (2024). Colchicine to prevent sympathetic denervation after acute myocardial infarction : the COLD-MI trial, *European Heart Journal*, **45** :9, 725–727

5. Zahar, S., Schneider, N. Makwana, A., Chapman, S., Corthesy, J., **Amico, M.** and Hudry, J. (2023). Dietary tryptophan-rich protein hydrolysate can acutely impact physiological and psychological measures of mood and stress in healthy adults. *Nutritional Neuroscience*, **26**: 4, 303–312.

4. Alliet P., Vandenplas Y., Roggero P., Jespers S.N.J., Peeters S., Stalens J-P., Kortman G.A.M., **Amico M.**, Berger B. Sprenger N. et al. (2022). Safety and efficacy of a probiotic-containing infant formula supplemented with 2'-fucosyllactose: a double-blind randomized controlled trial. *Nutritional Journal*, **21**: 11.

3. **Amico, M.**, Van Keilegom, I. et Han, B. (2021). Assessing cure status prediction from survival data using receiver operating characteristic curves. *Biometrika*, **108**, 727–740.

2. **Amico, M.**, Van Keilegom, I. et Legrand, C. (2019). The single-index/Cox mixture cure model. *Biometrics*, **75**, 452–463.

1. **Amico, M.** et Van Keilegom, I. (2018). Cure models in survival analysis. *Annual Reviews of statistics and its Applications*, **5**, 311–342.

Conference proceedings

2024 **M. Amico**, Al Taweel, B., Nocca, D, & Picot, M-C. Comparaison de la gastrectomie longitudinale avec montage anti-reflux à la gastrectomie longitudinale dans le cadre de la prise en charge de patients obèses : analyse de non-infériorité par score de propension des données de la cohorte BAREVAL. *Revue d'Epidémiologie et de Santé Publique*, numéro spécial EPICLIN 2024.

2023 M. Saour, Blin C., Benjamin Bourdois, B., **Amico, M.**, Picot, M-C., Gaudard, P., Colson, P. Patient Blood Management in cardiac surgery : impact of an individualized strategy optimized by Erythropoietin and ferric carboxymaltose associated with ScvO2, *Journal of Cardiothoracic and Vascular Anesthetia*, Special issue : 38th EACTAIC Annual Congress, **37** : 1, 31–32.

Thesis

Amico, M. (2018). *Cure models in Survival Analysis : From Modelling to Prediction Assessment of the cure fraction*. PhD thesis.

Amico, M. (2013). *On the introduction of cured observations in survival analysis : a literature review on cure models*. Master thesis.

Scientific presentations

National and International Conferences

May 2025	10th Channel Network Conference 2025, Liège, Belgium. "Emulating a Target Clinical Trial in the Context of Multiple Outcomes and Missing Data : the Example of the PROPENSLEEVE Study" (Contributed talk)
May 2024	EPICLIN 2024, Dijon, France. "Comparaison de la gastrectomie longitudinale avec montage anti-reflux à la gastrectomie longitudinale dans le cadre de la prise en charge de patients obèses : analyse de non-infériorité par score de propension des données de la cohorte BAREVAL" (Contributed talk)
Oct. 2018	Réunion Annuelle de la Société Belgique de Statistique, Ovifat, Belgium. "Assessing Cure Status Prediction from Survival Data Using ROC Curves" (Poster)
July 2017	38th Annual Conference of the International Society for Clinical Biostatistics (ISCB), Vigo, Spain. "A ROC curve approach for cure status prediction from survival data" (Contributed talk)
July 2017	10th International Conference on Mathematical Methods in Reliability, Grenoble, France. "The Single-Index/Cox Mixture Cure Model" (Communication orale - *Invited talk*)
Dec. 2016	9th International Conference of the ERCIM WG on Computational and Methodological Statistics, Sevilla, Spain. "The Single-Index/Cox Mixture Cure Model" (Invited talk)
July 2016	XVIIIth International Biometrics Conference (IBC), Victoria, Canada. "The Single-Index/Cox Proportional Hazards Mixture Cure Model : A New Modelling Approach for the Mixture Cure Model" (Contributed talk)
Aug. 2015	36th Annual Conference of the International Society for Clinical Biostatistics (ISCB), Utrecht, The Netherlands. "Estimation of a Mixture Cure Model Estimation with a Single-Index Structure" (Poster)
Nov. 2014	Réunion Annuelle de la Société Belge de Statistique, Louvain-la-Neuve, Belgium. "Mixture Cure Model Estimation with a Single-Index Structure" (Poster)

Seminars & workshops

April 2025	Internal seminar Institut Montpelliérain Alexander Grothendieck, University of Montpellier, Montpellier, France. "Assessing Cure Status Prediction from Survival Data Using ROC Curves"
June 2023	Internal seminar Clinical Reseach and Epidemiology Unit, Montpellier University Hospital, Montpellier, France. "Les modèles de guérison en analyse de survie"
May 2017	10th anniversary on the Institute of Statistics, Biostatistics and Actuarial Sciences - UCLouvain, Louvain-la-Neuve, Belgium. "The Single-Index/Cox Mixture Cure Model"
Sept. 2016	Young Researchers Day, UCLouvain, Louvain-la-Neuve, Belgium. "The Single-Index/Cox Mixture Cure Model"
Dec. 2015	Complex Time to Event data, Louvain-la-Neuve, Belgium. "Estimation of a Mixture Cure Model with a Single-Index Structure"
Sept. 2014	Young Researchers Day, UCLouvain, Louvain-la-Neuve, Belgium. "Mixture Cure Model Estimation with a Single-Index Structure"

Teaching

2025 –   *Data Science In Lab* (12h/year - 2nd year Master's degree "Statistique et Sciences des Données") – University of Montpellier

2025 –   *Modèle linéaire général* (20h/year - 1st year Master's degree "Epidémiologie, Données de Santé et Biostatistiques") – University of Montpellier

2023 –   *Modèles linéaires généralisés et mixtes* (15h/year - 2nd year Master's degree "Epidémiologie, Données de Santé et Biostatistiques") - University of Montpellier

2023 –   *Régression logistique et Poissonienne* (8h/year of practical activities - 1st year Master's degree MIASHS) - University of Montpellier Paul Valery

Previously

2021 – 2022   *Module Prépro : Métiers de l'analyse, des études et du conseil : Outils Statistiques S4* (36h/year - 2nd year Bachelor's degree in social sciences) – University of Montpellier Paul Valery

2021 – 2022   *Statistiques descriptives et probabilités* (48h/year of practical activities - 1st year Bachelor's degree MIASHS) – University of Montpellier Paul Valery

2021 – 2022   *Statistiques descriptives* (27h/year of practical activities - 1st year Bachelor's degree in Economic administration) – University of Montpellier Paul Valery

2021 – 2022   *Statistiques multivariées* (20h/year - 1st year Master's degree "Gestion des Territoires et Développement Local") – University of Montpellier Paul Valery

2021 – 2022   *Statistiques et probabilités bivariées* (25h/year of practical activities - 2nd year Bachelor's degree MIASHS) – University of Montpellier Paul Valery

2021 – 2022   *Module Prépro : Métiers de l'analyse, des études et du conseil : Outils Statistiques S3* (36h /year - 2nd year Bachelor's degree in social sciences) – University of Montpellier Paul Valery

2013 – 2017   *Traitement statistique des données* (30h/year of practical activities – 2nd year Bachelor's degree in Pharmacy) – Université catholique de Louvain, Belgium

2013 – 2017   *Modèles linéaires avancés* (5h/year of practical activities – Master's degree in Statistics) – Université catholique de Louvain, Belgium

2013 – 2016   *Biostatistique* (90h/year of practical activities - 2nd year Bachelor's degree in Veterinary sciences) – Université catholique de Louvain, Belgium

2013 – 2016   *Plans expérimentaux* (20h/year of practical activities - Master's degree in Statistics and in Bio-engineering) – Université catholique de Louvain, Belgium

2014 – 2016   *Analyse statistique multivariée* (45h/year of practical activities - 2nd year Bachelor's degree in Management) – Université catholique de Louvain, Belgium

2013 – 2015   *SAS Data Management I* (20h/year – Master's degree in Statistics) – Université catholique de Louvain, Belgium

2013 – 2014   *Statistique II : Inférence pour une ou deux variables* (45h/year of practical activities - 2nd year Bachelor's degree in Psychology) – Université catholique de Louvain, Belgium

Continuing education

Trainings provided throught the plateforme technologique de Support en Méthodologie et Calcul Statistique (SMCS) of the Université catholique de Louvain, Belgium :

2015, 2016   Modèles multi-niveaux avec SPSS

2014   Plans d'expériences

Student supervision

PhD students

2025 – Guillaume Bouland *(joint with Caroline Mollevi)*

2024 – Sara Ibrahim *(joint with Nicolas Molinari)*

Master's degree students

2025 Fanny Bez, Arthur Tena

2023 Bader Al Taweel

Funding

2025 Bourse de master du pôle Biologie-Santé – University of Montpellier (*joint with Élodie Brunel-Piccinini*) : *4 000 euros*

2025 Programme d'Excellence I-SITE, University of Montpellier - Lauréat chaire de professeur junior : *100 000 euros*

2024 Chaire de Professeur Junior, Agence Nationale de la Recherche (ANR) : *200 000 euros*

Referee

Biometrics (1), TEST (1), Journal of affective disorders (1)

Service to the profession

Member of the scientific programme commitee of the 20th conférence francophone d'ÉPIdémiologie CLINique (EPICLIN), Montpellier, France, 20-22 may 2026

Member of the organising commitee of the 20th conférence francophone d'ÉPIdémiologie CLINique (EPICLIN), Montpellier, France, 20-22 may 2026