

Last updated : 28 octobre 2025

Current position

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 positions

- 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 Actuarial 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 Anesthesia*, 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.

Talks

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 Montpellierain Alexander Grothendieck, University of Montpellier, Montpellier, France. "Assessing Cure Status Prediction from Survival Data Using ROC Curves"
- June 2023 Internal seminar Clinical Research 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"

Referee

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

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

Students

PhD student

- 2025 – Sara Ibrahim (*joint with Nicolas Molinari*)

Master's degree students

- 2025 Fanny Bez, Arthur Tena
- 2023 Bader Al Taweel

Teaching

Currently

- 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 Valéry

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 Valéry
- 2021 – 2022 *Statistiques descriptives et probabilités* (48h/year of practical activities - 1st year Bachelor's degree MIASHS) – University of Montpellier Paul Valéry
- 2021 – 2022 *Statistiques descriptives* (27h/year of practical activities - 1st year Bachelor's degree in Economic administration) – University of Montpellier Paul Valéry
- 2021 – 2022 *Statistiques multivariées* (20h/year - 1st year Master's degree "Gestion des Territoires et Développement Local") – University of Montpellier Paul Valéry
- 2021 – 2022 *Statistiques et probabilités bivariées* (25h/year of practical activities - 2nd year Bachelor's degree MIASHS) – University of Montpellier Paul Valéry
- 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 Valéry
- 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 through 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