

Junior Professor Chair in Statistics

Last updated : 4 novembre 2025

Positions

Current

- 2024–Present **Junior Professor Chair in Statistics (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 Department, 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 Méthodologie 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*”, under 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.

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 Belge 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 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"

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 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 *Traitemet 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

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 committee of the 20th conférence francophone d'ÉPIDémiologie CLINique (EPICLIN), Montpellier, France, 20-22 may 2026

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