Lucas Junot: The Singing Mathematician of Coimbra

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The 2025 Workshop on Optimization, Dynamics and Convex Analysis (WODCA) was held in Aveiro, Portugal, from June 11 to 14. Following the workshop's conclusion, I took a day off to explore the surrounding Bairrada region, renowned for a delicacy I had long heard about but never tasted: *leitão da Bairrada*, or Bairrada suckling pig. My intended destination was Mealhada, a small town acclaimed as the suckling pig capital of the world. However, at the Aveiro railway station, the ticket agent convinced me to spend a few hours in Coimbra, Portugal's fourth-largest city, before stopping at Mealhada for dinner on my return. Since I had never visited Portugal before, and with Aveiro being a small city, I followed the agent's advice. A stroll through Coimbra would surely help to build an appetite for the hearty meal I anticipated.

In the three hours I had in Coimbra, I witnessed the concluding events of a Portuguese wedding outside the Old Cathedral (*Sé Velha*), noting both parallels and differences with Indian culture. I then enjoyed a delicious and inexpensive *meia de leite* (a drink of half coffee, half milk), which was both satisfying and devoid of marketing nonsense. As I wandered the narrow streets near the cathedral, a small metallic plaque caught my eye (see Figure 1). In the Portuguese text accompanying a man's image (Figure 2), the word *matemáticas* stood out. My mathematical curiosity made me pause to read it, just as it had brought me to a halt in Germany [4] and Russia [3]. The name on the plaque, Lucas Junot, was absolutely unknown to me.

A quick Google search on my phone did not lead me to a mathematician by the name of Lucas Junot but rather to a Portuguese singer and guitarist. I snapped a few photographs so that I could revisit the matter after my culinary quest. Later, my further investigation revealed that the singer and mathematician were indeed the same person. His discographies even include the titles "Dr." and "Prof."[1] So who was this singing mathematician whose plaque I had stumbled upon?

Lucas Rodrigues Junot was born in the Brazilian coastal city of Santos to Portuguese parents. He moved to Coimbra in 1914, and in in 1922, he enrolled in the Faculty of Sciences at the University of Coimbra, one of Europe's oldest institutions, to pursue a degree in the mathematical sciences. He graduated in 1927 with the title of *licenciado*, equivalent to today's master's degree. While there are no known mathematical results attributed to him, Junot embodied the ideal of a well-rounded intellectual. During his student years, he gained fame as a singer and guitarist of *fado de Coimbra*, a melancholic genre distinct from Lisbon fado and traditionally performed by male students.

Does your hometown have any mathematical tourist attractions such as statues, plaques, graves, the café where the famous conjecture was made, the desk where the famous initials are scratched, birthplaces, houses, or memorials? Have you encountered a mathematical sight on your travels? If so, we invite you to submit an essay to this column. Be sure to include a picture, a description of its mathematical significance, and either a map or directions so that others may follow in your tracks. Submissions should be uploaded to https://submission.nature.com/new-submission/283/3 or sent directly to Ma. Louise Antonette N. De Las Peñas, mathtourist1@gmail.com.

[1]See, e.g., the discographies listed at https://www.discogs.com/artist/1155805-Prof-Lucas-Junot.

https://doi.org/10.1007/s00283-025-10465-3

With his expressive voice and skill on the classical and Portuguese guitars, Junot became a standout in Coimbra's vibrant student music scene. The year 1927 marked a triple milestone: he graduated, got married, and recorded several 78-rpm discs in London.

Figure 1. The view near the building shown in Figure 3 looking toward the Old Cathedral (*Sé Velha*), where the wedding had taken place. The plaque in Figure 2 is visible on the right. Photograph by the author.

For the mathematically inclined, Junot did in fact leave an educational legacy. After returning to Brazil, he worked as a mathematics teacher and tutor. In the 1950s, he authored a textbook series titled *Matemática para o curso comercial básico* (Mathematics for a Course on Basic Commerce), published in four volumes by Editora do Brasil between 1953 and 1956. Aimed at students in Brazil's commerce-oriented schools, the books focused on clerical and accounting mathematics such as arithmetic, percentages, and interest rates. For further details, see the PhD thesis [2] (in Portuguese) on accounting mathematics from São Paulo State University, especially Figure 17, which shows the cover of one of Junot's books.

In 1970, the University of Coimbra honored Junot with the commemorative plaque shown in Figure 2 and a lecture titled *Lucas Junot: A Saudade de Coimbra* (Lucas Junot: A Longing for Coimbra).[2] The building where Junot once lived appears to have hosted a number of notable students. Another white plaque above the door (Figure 3) honors Edmundo de Bettencourt, a law student, poet, and singer associated with the influential Portuguese literary magazine *Presença*. Bettencourt was a key figure in the "Golden Generation" of the 1920s in Coimbra,[3] a period marked by both artistic fervor and technological developments in musical recording [1].

This tribute serves as a reminder that an academic life—especially in mathematics—need not be defined by unidimensional logic. The strum of a guitar, the melody of a fado, and even the absence of theorems can all contribute to a richer multidimensional existence.

Figure 2. A commemorative plaque on *Rua dos Coutinhos* (Coutinhos street) in Coimbra, installed in 1970 by Junot's Brazilian colleagues. Translation: In this house lived the Brazilian student Lucas Junot (1902–1968), who graduated in the Mathematical Sciences on 26 July 1927, and who ennobled the "Fado de Coimbra." Tribute from his colleagues from Brazil. 26-7-1970. Photograph by the author.

[2]For further details on Junot's musical legacy, visit the blog by Octávio Sérgio at https://guitarrasdecoimbra2.blogspot.com/2012_05_27_archive.html?.

[3]See also https://www.songlines.co.uk/the-rough-guide-to-world-music/the-rough-guide-to-world-music-portugal.

Figure 3. The building on *Rua dos Coutinhos* (Coutinhos street) where Lucas Junot lived as a student. The bronze plaque zoomed in Figure 2 is mounted near the top left. The white plaque (installed in 1989) above the closed door commemorates Edmundo de Bettencourt (1899–1973), a prominent poet and singer of the Coimbra fado, who lived here while studying law. The text on the white plaque quotes the Portuguese writer José Régio (1901–1969). Photograph by the author.

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Figure 4. A mural in Mealhada for the suckling pig for which the town is globally renowned. Photograph by the author.

Finally, to those curious about the rest of my journey, I did try the suckling pig in Mealhada. While I will spare the reader the culinary details here, since they lack mathematical flavor, I leave you with a visual taste: a wall mural I passed on my walk from the train station to Mealhada's center (see Figure 4).

Acknowledgments

This work was supported in part by the University of Southampton's Higher Education Innovation Funding (HEIF).

Author Contributions BS wrote the manuscript and clicked all the photographs.

Data Availability No datasets were generated or analysed during the current study.

Declarations

Conflict of interest The authors declare no competing interests.

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