

# Capacity building and Biography of Heleno Bolfarine

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#### Abstract:

We present a short bio and academic records of Professor Heleno Bolfarine, Full Professor at the Institute of Mathematics and Statistics at the Universidade de São Paulo, Brazil. We show that Professor Bolfarine, an outstanding and renowned researcher, throughout his career, considerably expanded Statistical Science in Latin America. With extraordinary capacity, Professor Bolfarine helped build and grow an international research network, encouraging collaborative interchange between his students and renowned international institutes. In a career expanding almost forty years, Professor Bolfarine, advised more than fifty students, between masters and doctorate, that today, are part of twenty-six different departments in more than five different countries. Professor Bolfarine inspired generations of Statisticians and is a pioneer of his field. The Mahalanobis International Award for a Statistician from a developing country, comes as a recognition to a life dedicated to research, teaching and scientific divulgation.

#### Keywords:

Capacity building; Biography; Statistics; Mahalnobis International Award; South America Statistician's, South America

#### 1. Introduction:

In this work we present a short bio<sup>3</sup>, and the academic achievements of Professor Heleno Bolfarine. His achievements justify, meritoriously, the obtention of the Mahalanobis International Award, sponsored by the Ministry of Statistics and Programme Implementation, of the Government of India. The Mahalanobis International Award is an important recognition and merits an individual for lifetime achievements in Statistics in developing country or region.

In the tradition of Professor P.C. Mahalanobis and other winners of this award, we show that Professor Bolfarine excelled in research, in teaching and scientific divulgation. He also led great efforts to promote Statistics as a degree in South American countries. We analyze these achievements, in the Methodology Section, in which we consider two databases: one from former PhD students, and the other from publications platforms<sup>1,2</sup>.

#### 2. Methodology:

We prepare two databases to study Professor Bolfarine's academic performance. One database is based on advised Phd students<sup>1,2</sup>, which includes spatial information with the locations where they are currently teaching. The other is based on Professor Bolfarine's academic records, known as curriculum Lattes<sup>1</sup> (Brazilian government platform, that records academic achievements). Both databases contain additional material and are available under requirement.

## 3. Result:

By considering the first database, Figure 1. shows the distribution of Professor Bolfarine's Phd students. We use spatial information, to indicate the department of Statistics they are currently working. In total, he was advisor of 16 master and 44 Phd students at the University of São Paulo. Professor Bolfarine advised 17 Phd from Brazil, 8 from Chile, 14 from Peru, 2 from Argentina and 3 from Colombia. Currently, these researchers are allocated in 26 different departments of Statistics, in important universities, in several countries in South America.



Figure 1. Map of America with the distributions of Professor Bolfarine's Phd students.

By considering the second data base, we find that Professor Bolfarine's work encompassed diverse areas of the Statistical Science, including Error-in-variables models, Calibration, Reliability, Distributions and Sampling, Prediction Theory for Finite Populations, Mixed Models and Regression Analysis. Additionally, we note diverse contributions in Statistical Applications. Most of them, under a Bayesian approach.

Furthermore, Professor Bolfarine he has published 5 books (3 in Portuguese and 2 with Springer: Prediction Theory for Finite Populations, with Shelemyahu Zacks, and Regression Models for the Comparison of Measurement Methods, with Mario de Castro, and has published more than 337 refereed articles/book chapters in major academic journals<sup>1,2,</sup> with a wide network of collaborators resulting in more than five thousand citations<sup>2</sup>.

### 4. Discussion and Conclusion:

In this work we discussed Professor Bolfarine's academic career. He advised more than fifty students, between masters and doctorate, that today, are part of twenty-six different departments in more than five different countries, and inspired generations of Statisticians. Throughout his career, Professor Bolfarine helped to expanded Statistical Science in Latin America. With extraordinary capacity, created a research network that encourages collaborative interchange between different institutes.

From the results presented, we conclude that Professor Bolfarine excelled in research, teaching and scientific divulgation, and has also led great efforts to promote Statistics as a degree in South America. His career followed the principles and ideas of the great professor Mahalanobis, and thus is worthy of the award inspired by him.

### **References:**

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