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## Volunteer Lecturer Program: Exit Survey

Name of Volunteer: **Fabrizio Ruggeri**

Email Address: **fabrizio@mi.imati.cnr.it**

Home Institution: **Consiglio Nazionale delle Ricerche - Istituto di Matematica Applicata e Tecnologie Informatiche**

Position in Home Institution: **Research Director**

Arrival and Departure Day in Host Country: **12-25/2/2017 and 25/3-9/4/2017**

Who was your main contact in the host country (name, affiliation and email address):

**Ivan Yessel Henriquez Rivera, Universidad Nacional Autonoma de Honduras,  
<ivan.henriquez@unah.edu.hn>**

Please answer the following questions:

- 1) Location (country, city, institution) of your lecture: **Honduras, Tegucigalpa, Universidad Nacional Autonoma de Honduras**
- 2) Dates of Lecture: **13-24/2/2017 and 25/3-9/4/2017 (2 hours a day, 5 days a week, for 4 weeks + 5 lectures via Skype in the period between the two visits)**
- 3) Subject and title of the course: **Nonparametric Statistics**
- 4) How often did you teach a course? **Usually 1 or 2 intensive courses at Ph.D. level**
- 5) How many students did participate in the course (s)? **5 + some auditors every once in a while**
- 6) Background of Students: **Master Students**
- 7) Please provide (if possible) any schedule of activities/list of topics covered during your visit.
  - **Order statistics**
  - **Empirical distributions**
  - **Kaplan-Meier estimator**
  - **Kolmogorov-Smirnov test statistics**
  - **Chi-square goodness of fit test**
  - **Contingency tables**
  - **Fisher exact test**
  - **Rank test**
  - **Bayesian nonparametrics**
  - **Smoothing**
  - **Nonlinear regression**
  - **Density estimation**
  - **Orthogonal functions**
  - **Wavelets**
- 8) Did you develop or follow a prescribed syllabus or did you write your own?  
Was it available to the students before the course or when the course began?  
Please also mention the references you used or any text books that were referred to: **I followed the existing syllabus but I gave a major emphasis on the topics I believed were more relevant nowadays: Smoothing, Nonlinear regression, Density estimation, Orthogonal functions, Wavelets. The syllabus was available well in advance but I made clear that half**



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course would have been on the relevant topics nowadays. I based the course on few papers of mine but mostly on the following books:

- Wasserman, L., *All of Nonparametric Statistics*, Springer, 2006
  - Kvam, P. and Vidakovic, B, *Nonparametric Statistics with Applications to Science and Engineering*, Wiley, 2007
  - Hollander, M., Wolfe, D.A. and Chicken, E., *Nonparametric Statistical Methods*, Wiley, 2014
  - Bagdonavičius, V., Kruopis, J. and Nikulin, M.S., *Non-parametric Tests for Complete Data*, Wiley, 2011
  - Gibbons, J.D. and Chakraborti, S. , *Nonparametric Statistical Inference*, Fourth edition, Marcel Dekker, 2003
  - MacFarland, T.W., and Yates, J.M., *Introduction to Nonparametric Statistics for the Biological Sciences Using R*, Springer, 2016
- 9) Did you use any books, classroom material, AV, or other technology-based materials? **I used slides, either prepared by me or with annotated text from selected books**
- 10) What type of assessment tools did you use? **Three homework, two exams in class, participation in class**
- 11) In which language was the course given: **Spanish**
- 12) Was the course language, the native language of the students? **Yes**
- 13) Did you give any public lecture, discussed with local staff issues regarding curriculum? **I discussed mostly about possible cooperation and I gave 8 very well attended (by faculty and students) lectures on:**
- **Introduction to Bayesian Statistics**
  - **Case studies in Bayesian reliability**
  - **Concentration function**
  - **Bayesian estimation in stochastic predator-prey models (COBAL3)**
  - **Modelling bugs introduction during software testing**
  - **Bayesian Methods in Project Management**
  - **On Bayesian estimation of thermal diffusivity in materials**
  - **Some results on Bayesian estimation of wavelets coefficients**
- 14) Where did you live? (e.g. hotel, hostel, on campus, in city e.g.): **aparthotel in city**
- 15) Do you have any recommendations/suggestions to the professor who will visit the university in the future (also regarding accommodation, health and visa issues)? **There were better hotels and closer to UNAH but very expensive. One should pay attention to mosquito bites (I was bitten but, likely, with no consequences)**
- 16) Would you like to share anything else like any particular experience, testimonial etc.? **My host was very helpful and he took care of me very graciously**