



**« Research Assistant: Behavioral and Experimental Studies »
Master2 Research Internship**

April-May to September-October (6 months) 2017
@ Laboratoire d'Économie Expérimentale de Nice (LEEN)



Context:

The Experimental Economics Laboratory of Nice (LEEN) is a research team hosted by the GREDEG/CNRS and the University Côte d'Azur (UCA). Since the UCA's IDEX excellence grant (€580 million starting in April 2017), Experiments in Social Sciences have become one of the University's principal research focus (<http://univ-cotedazur.fr/english/idex-uca-jedi>).

As the best way to make causal inference, controlled Experiments in Economics have seen significant growth since the middle of last century. Introduced to test Economics' theories, the experimental method invades most fields in the discipline. This implies the emergence of new academic journals and increases the standards and the exigence in terms of design and methods. One particularity of Experimental Economics, compared to other social sciences, is the need of providing real, salient and transparent incentives to participants (no deception). Thanks to that, the scientist creates both a real - where Economic Theory should work - and ideal world, where subjects' preferences are induced (Smith, 1976) and institution may be controlled.

Furthermore, the Laboratory allows us not to restrict our observation to final choices but to investigate the decision process (e.g. allocation of attention, information processing, etc.) through behavioral, physiological and neurological measures (response time, eye-movement, facial recognizance of emotion, electrodermal response, heart pulsation, etc.). In this perspective, the LEEN - in collaboration with colleagues from other Social Sciences - will equip soon one of the most modern European Laboratory: the « Complexity and Cognition Lab » (CoCoLab), where such physiological, neurological and behavioral data are collected and centralized.

Internship Description:

The LEEN is looking for an intern to assist researchers working on the Nash Program.

The Nash Program is a research agenda trying to support solutions of cooperative games by equilibria of non-cooperative games. It is a challenging program, both theoretically (as it will unify Game Theory) and empirically (as it highlights how coalitions may "rationally" and spontaneously emerge). The famous solution of cooperative games (i.e. coalition formation and monetary repartition of coalitions' earnings) is the Shapley (1953) solution (Shapley value). The Shapley Value is an efficient and "fair" solution as a function which awards to each player the average of her marginal contribution in all possible coalitions. There exist different axiomatizations of coalitions' earnings conducing to the existence of a Shapley value.

Several authors (Hart and Mas-Colell, 1996; Perez-Castrillo and Wettstein, 2001; Winter, 1993; Gul, 1989; etc.), have proposed different N-players bargaining games where the unique Nash Equilibrium is the Shapley Value. To the best of our knowledge, the only experimental implementations of such theoretical results concern bilateral negotiations (e.g. Navarro and Veszteg, 2011 implement a two-player-bilateral version of Perez-Castrillo and Wettstein bidding procedure), while the theoretical works propose multilateral bargaining. There is no attempt to implement bargaining experiment conducing to Shapley Solution with more than two players. Thus, the use of experimental method will bring several answers:

- Are any of the latter procedures experimentally robust to multilateral bargaining? If yes:
 - Which bargaining procedure implements Shapley Value the easiest in the Lab?
 - Which axiomatization implements Shapley Value the easiest in the Lab?
- Is it possible to find a “bargaining experimental solution” which is not theoretically proven to conduct to Shapley Value but empirically does so?

Main Task: Collaboration on the above research project.

- Literature Review on the subject;
- Discussion of hypothesis and design of the experiments both with theorists and experimentalists;
- Computer implementation of the experiment;
- Administrate and run experimental sessions;
- Data analysis and redaction.

Perfect internship will be sold by paper submission in an international peer-reviewed journal.

Secondary Tasks: Contribution to the Laboratory life:

- Help to administrate and run others’ experiments;
- Help in the organization of conferences hold by the Laboratory;
- Participation to the seminars, conferences and regular lab meetings;
- Potentially some vulgarization activities for high school student.

Ideal Intern:

The Research assistant we are looking for has most of the following substitutable qualities:

- High attractiveness for academic career (willing to pursue a PhD);
- Good writing and interpersonal skills;
- Involved, autonomous, critical thinking, curious and desirous to learn;
- Good comprehension in Mathematical Economics (especially Game Theory) and Statistics / Econometrics (Hypothesis Testing & Linear regression);
- Skills in Programming and use of statistical software (R or Stata);
- The knowledge of z-Tree or O-Tree environment (Python + JavaScript + html), would be appreciated;
- Familiarity with Experimental and Behavioral Economics, Psychology or Sociology would be appreciated;
- Few basics in French would be appreciated (fluency not required).

Opportunities:

This internship is the perfect opportunity for candidates interested in academic or R & D career:

- Significant research experience, with potential publication in an international academic journal;
- Attending to several conferences hosted by UCA during the internship, including the annual meeting of the French Economics Association (AFSE) and the international meeting of the Society for Experimental Finance (SEF);
- Possibility to continue in PhD within University Côte d’Azur through a 3-years contract (up to €1.650 by month, net of tax).

Information and Contact:

6-months internship, with some flexibility in starting and ending date (from early April to late October). Remuneration is €554/month.

The internship will be based at the « *Institut Supérieur d’Economie et de Management* », in Nice, the French Riviera main city and the 5th larger (the 2nd most visited) city in France. Thanks to its perfect weather and location between the Mediterranean and the Alps, “Nissa la Bella” is one of the best places to live in France, with a typical colored architecture and an impressive culinary heritage. The intern will be integrated and supervised within LEEN by a fast-growing and dynamic research team which is very available and devoted to their students. cf. <http://leen.unice.fr/public/team.php>

Contact: Agnès Festré, Professor of Economics and head of LEEN agnes.festre@unice.fr

For the application (either in French or English), please join:

- Curriculum vitae and cover letter;
- Grade records of last two years;
- Letter(s) of recommendation(s) will be considered.