

Arnold Cedrick SOH VOUTSA

PH.D. STUDENT · TEACHING ASSISTANT

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Citizenship: Cameroonian.

*"You always
if you are afraid of failure, you don't de*

Skills

Research interests	Social Sciences, Social Choice, Game Theory, Power indices, "Computer Science, AI and Data Science"
Office softwares	Microsoft Office, Open Office, LaTeX, Geogebra
Programming languages	R, Python, Matlab
Languages	French, English
Others	Oral Presentation, Teaching, Management

Education

CY Cergy Paris Université

Cergy-Pontoise, France

DOCTORATE DEGREE (IN PROGRESS, 3RD YEAR)

Sept 2017 - PRESENT

- **Major:** Economics.
- **Financement:** Contrat doctoral [Sept 2017-Aug 2020] par *CY Initiative* (précédemment Paris Seine Initiative).
- **DOCTORATE THESIS:** Choix social avec des influences sociales et des interactions spatiales.
- **Research Interests:** Social Choice, Power indices, Stability of solution concepts, Game theory, Inequality measures, Decision Theory.
- *PhD advisors:* **Mathieu MARTIN & Marcus PIVATO**

University of Yaounde 1

Yaounde 1, Cameroon

MASTER DEGREE IN APPLIED MATHEMATICS

Jan. 2015 - Apr. 2017

- **MASTER THESIS:** EDP de type non local ("On the non-local Partial differential equation")
- **Thesis Supervisors:** Gabriel NGUETSENG & Jean Louis WOUKENG

Higher Teacher Training (ENS de Yaoundé)

Yaounde 1, Cameroon

SECONDARY AND HIGH SCHOOL TEACHER'S DIPLOMA

Nov 2012- Aug. 2014

- **PEDAGOGICAL & DIDACTIC THESIS:** Barycentre et applications.
- **Summary:** Proposition d'une méthode d'enseignement des Mathématiques par des NTICS.
- **Thesis Supervisors:** Pr. NNANG HUBERT Madeleine & M. POKAM Roger & Mme MELELE Judith

University of Dschang

Dschang, Cameroon

BACHELOR'S DEGREE IN MATHEMATICS AND COMPUTER SCIENCE

Sept 2009 - Aug 2012

- **PROJECT'S TITLE:** Théorème de Baire et ses applications
- **Supervisor:** David DONGO

Lycée Classique de Dschang

Dschang, Cameroon

BACCALAURÉAT C (OPTION: SCIENCES MATHÉMATIQUES)

Sept 2008 - Aug 2009

Formations & Certifications

Massachusetts Institute of Technology (MIT | xPro)

Massachusetts, USA

PROFESSIONAL CERTIFICATE ON DATA SCIENCE AND BIG DATA ANALYTICS: MAKING DATA-DRIVEN DECISIONS

Feb 2020 - Mach 2020

- **Credential ID:** 6655e5f4-68cb-437b-bad2-6224e8beeee2
- **Credential URL:** <https://xpro.mit.edu/certificate/6655e5f4-68cb-437b-bad2-6224e8beeee2/>
- Online Certification's MIT (Issued Mach 2020 - No Expiration date.)

ILAC (International Language Academic of Canada)

Toronto, Canada

CERTIFICATE OF FORMATION

July 2019 - August 2019

- **Learning by doing:** immersion with Culture and Tourism in Toronto, Ottawa, Waterloo, Quebec City, Montreal, Niagara Falls.

CY Cergy Paris Université

Cergy-Pontoise, France

ATTESTATION DE PARTICIPATION

2017 - 2018

- **Adum:** Plateforme de formations diverses pour doctorants et docteurs.
- **Formations suivies:** Carrière des docteurs dans le 'Conseil' après la thèse, Conduite de Projets, Enseigner - le corps et la voix dans les situations d'enseignement, etc.

Normandie Université

Saint-Valery en Caux
(Seine-Maritime), France

CERTIFICATE OF ATTENDANCE

April 16 - 16, 2018

- **Doctoriales:** séminaire résidentiel de 5 jours de formation pour l'insertion professionnelle des doctorants.
- **Entreprenariat:** concevoir et présenter un projet innovant. (PEPITE Vallée de Seine)

University of Cergy-Pontoise, UFM, enseignement, education, culture et technologies

Cergy-Pontoise, France

CERTIFICATE OF ATTENDANCE

July 8 - July, 2013

- **Parcours:** Analyse, Conception et Recherche dans le Domaine de l'Ingénierie des Technologies en Education.
- **ELearning** permettant l'expérimentation du dispositif à distance "PedaTICS-Maths", dotant ainsi les enseignants de Mathématiques des compétences d'enseignement en ligne via des outils technologiques.

CNAM, FUN MOOC (Massive Open Online Courses)

Paris, France.

CERTIFICATE ON "ARTIFICIAL INTELLIGENCE FOR ALL" (IN PROGRESS)

Mar 02 - Jun 28, 2020

- **Summary** How do managers should integrate Artificial Intelligence in their teams and Business.
- **CNAM** standing for *Conservatoire National des Arts et Métiers*. **FUN** standing for *France Université Numérique*

University of Liege, FUN MOOC

Liege, Belgium

OPEN BADGE & CERTIFICATE OF ATTENDANCE ON "LES MOTS DU POUVOIR" (IN PROGRESS)

Feb 03 - May 31, 2020

- **MOOC** : inspiré de Jamin Jérôme et al., *Fondements de Science politique, Bruxelles : De Boeck, 2014, 440p.*

CNAM, FUN MOOC

Paris, France.

CERTIFICATE ON "DU MANAGER AU LEADER : DEVENIR AGILE ET COLLABORATIF" (IN PROGRESS)

Jan 15 - May 24, 2020

- **Summary:** Roughly, the good ways to be both manager and leader in this area of AI.

Experience & Research & Teaching

CY Cergy Paris Université

Cergy-Pontoise, France

PH.D. STUDENT & TEACHING ASSISTANT (CURRENT POSITION)

Sep. 2017 - PRESENT

- **Major:** Economics.
- **Financement:** Contrat doctoral (Sept 2017-Aug 2020) par *CY Initiative* (précédemment Paris Seine Initiative).
- **Thesis:** Choix Social avec des influences sociales et des interactions spatiales.
- **PhD advisors:** **Mathieu Martin & Marcus Pivato**
- **Topic 1:** New method of representative democracy developed, where the idea is that with a very large population, individual shouldn't complain about decisions made by their representatives (if our method is adopted).
- **Topic 2:** Studies characteristics of spatial Power indices: Great tools to measure the power of political players taking into account their ideology. Thus these measure should reflect the truly power by applying in real case studies.
- **Topic 3:** Research stability solutions in spatial space (or geographical area), so that different actors should agree with in order to maximize the collective satisfaction in the society. (Localisation of public goods for example)
- **Topic 4:** Study inequality measures of income distribution in order to reduce such inequalities (for example, wage gap that we usually observe between women and men with same skills and competences.)
- **Teaching Experience:** Work with some groups of students of CY Cergy Paris Université, by providing them how to solve exercises (in TDs) given in principal courses.

Lycée de Mbansan

Yaounde, Cameroun

MATHEMATICS TEACHER

Sept. 2015 - May. 2017

Lycée de MAKOUNDJOU

Yaounde, Cameroun

MATHEMATICS TEACHER

Sept. 2014 - June. 2015

Higher Bilingual School of Yaounde

Yaounde, Cameroun

MATHEMATICS TEACHING ASSISTANT (INTERNSHIP)

Feb. 2014 - May. 2014

- Learn how to manage students (exercise, assignment, corrections, etc.)
- Learn how do some research in order to elaborate courses, how to teach them, and how to interact with administration.

Number's group.

Dschang, Cameroon

Co-FOUNDER & TUTOR

Sep. 2010 - August. 2012

- **Purpose:** Help High school students with their homework, especially those whose had many difficulties to understand at school.
- **Courses:** Mathématiques, Physique, Chimie, Informatique, Sciences Naturelles.

Individual commitment

TUTOR FOR SOME STUDENTS AT HOME AND AS VACATION

- **Topics:** Mathematics, Computer Science and physics.
- **Tutoring at home:** High secondary school levels.
- **Professional group namely "Les Puissants":** For University students.

Yaounde, Cameroon

Mar. 2015 - Jun. 2016

Oral Presentation

ADRES Doctoral Conference

ORAL PRESENTATION ON: "WEIGHTED REPRESENTATIVE DEMOCRACY"

Lyon, France

February 3-4, 2020

Advances in Economic Design: Games, voting, information and measurement, CNAM

ORAL PRESENTATION ON: "DECOMPOSITION OF INCOME INEQUALITY MEASURES WITH A HIERARCHICAL INCOME DISTRIBUTION"

Paris, France.

28 November 2019

Workshop "Voting Democracy and Inequality"

ORAL PRESENTATION ON: "SPATIAL POWER INDICES"

Caen, France.

26-27 September 2019

15th European meeting on Game Theory (SING15)

ORAL PRESENTATION ON: "WEIGHTED REPRESENTATIVE DEMOCRACY"

Turku, Finland.

2-4 July 2019

68th Annual meeting of the French Economic Association

ORAL PRESENTATION ON: "WEIGHTED REPRESENTATIVE DEMOCRACY"

Orléans, France

June. 17-19, 2019

Conference on Economic Design

ORAL PRESENTATION ON: "WEIGHTED REPRESENTATIVE DEMOCRACY"

Budapest, Hungary

12-14 June 2019

journée Scientifique de l'Initiative Paris Seine)

ORAL PRESENTATION ON "WEIGHTED REPRESENTATIVE DEMOCRACY"

Neuville Université, France

June 5, 2019

- Project Title: Compromise Rule Revisited : Definitions, Properties, Implementation, and Experiments.

International Project of Scientific Collaboration (PICS for short in French)

ORAL PRESENTATION ON "WEIGHTED REPRESENTATIVE DEMOCRACY"

Istanbul, Turkey.

October 28-31, 2018

- Project Title: Compromise Rule Revisited : Definitions, Properties, Implementation, and Experiments.

Attendance in Important Events

INTERNATIONAL

Aug 18-23, 2019 **Conference**, AMMCS International Conference.

Waterloo, Ontario, Canada.

10-11 June 2019 **Summer School**, on Engineering Aspects of Voting and Matching

Budapest, Hungary.

2015-2017 **Weekly Seminar**, Lab. Anyalyse, University of Yaounde 1

Yaounde, Cameroon.

DOMESTIC

Nov 30, 2018 **Conference**, CHOp ("Coping with Heterogeneous Opinions")

Paris, France.

Nov 20, 2018 **Conference**, 12th OSGAD, Maison des Sciences Economiques

Paris, France.

May 30 - June 1, 2018 **Conference**, Deliberation, Belief Aggregation and Epistemic Democracy

Paris, France.

May 22-23, 2018 **Conference**, 8th Murat Sertel Workshop on Economic Design, Decision, Institutions, and Organization

Caen, France.

May 27-28, 2019 **Workshop**, CoCoRiCo-CoDec (Computation, Communication, Rationality and Incentives in Collective and Cooperative Decision Making) at Paris-Dauphine University CoCoRiCo-CoDec stands for.

Paris, France.

June 25-28, 2019 **Summer School**, on Preferences, Decisions and Games

Paris, France.

Apr 16-20, 2018 **Doctoriales**, séminaire résidentiel de 5 jours de formation pour l'insertion professionnelle des doctorants

Saint-Valery en

Caux, France.

2017-PRESENT **Monthly Seminar**, only for THEMA's PhD Students

Paris, France.

2017-PRESENT **Monthly Seminar**, Game Theory, THEMA

Cergy-Pontoise,

France.

2017-PRESENT **Weekly Seminar**, ANALYSE ECONOMIQUE, ECONOMETRIE ET FINANCE (THEMA & ESSEC)

Cergy-Pontoise,

France.

Invitation

- **Doctoriales:** Oral presentation in this event organized by U.F.R. MIBA (Mathématiques, Informatique, Bioinformatiques et Applications).

Publication

Weighted Representative Democracy

Journal of Mathematical Economics

MARCUS PIVATO & ARNOLD SOH

Mar. 2020

- **Crossref DOI link:** <https://doi.org/10.1016/J.JMATECO.2020.03.001>

Submitted

Decompositions of inequality measures from the perspective of Shapley-Owen value

Games and Economic Behavior

RODRIGUE TAKENG TIDO & ARNOLD CEDRICK SOH VOUTSA & KEVIN FOURREY

Dec. 2020 - PRÉSENT

- **Link:** https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3739354

Manuscripts

Approval Voting & Majority Judgement in Weighted Representative Democracy

ARNOLD CEDRICK SOH VOUTSA

Mai. 2020 - PRÉSENT

- **Link:** <http://ssrn.com/abstract=3731754>

Deegan-Packel & Johnston spatial power indices and characterizations

ARNOLD CEDRICK SOH VOUTSA

fév. 2020 - PRÉSENT

- **Link:** <http://ssrn.com/abstract=3731749>

The spatial Public Good index for political games

ARNOLD CEDRICK SOH VOUTSA

fév. 2020 - PRÉSENT

- **Link:** <http://ssrn.com/abstract=3745849>

Utilitarianism approach in a Weighted Representative Democracy

ARNOLD CEDRICK SOH VOUTSA

fév. 2020 - PRÉSENT

- In progress....

A note on spatial power indices

ARNOLD CEDRICK SOH VOUTSA

Juillet 2020 - PRÉSENT

- In progress....

Banzhaf and Holler Packel spatial power indices in Political Games and characterizations

ZÉPHIRIN NGANMENI & ARNOLD CEDRICK SOH VOUTSA

fév. 2020 - PRÉSENT

- In progress....

On the Voronoï type spatial power indices

MATHIEU MARTIN & ZÉPHIRIN NGANMENI & ARNOLD CEDRICK SOH VOUTSA

Mai. 2020 - PRÉSENT

- In progress....

CHARACTERIZATIONS OF THE OWEN-SHAPLEY AND GENERALIZED OWEN SPATIAL POWER INDICES

MATHIEU MARTIN & ZÉPHIRIN NGANMENI & ARNOLD CEDRICK SOH VOUTSA

fév. 2019 - PRÉSENT

- In progress....

The Shapley value for multi-type games

ZÉPHIRIN NGANMENI & ARNOLD CEDRICK SOH VOUTSA & ELISE FLORE TCHOUANTE NGAMO

Mai 2020 - PRÉSENT

- In progress....

Monotonic Power Indices, Smaller Tripartitions and New Members in Voting Games with Abstention

JOSEPH ARMEL MOMO KENFACK & ARNOLD CEDRICK SOH VOUTSA

Mai. 2020 - PRÉSENT

- In progress....

Courses

2020-2021	Macroeconomie II , Licence 1 en économie	France
2020-2021	Probabilités , Licence 2 en économie	France
2018-2021	Mathématiques Financières , Licence 2 en économie	France
2019-2020	Statistiques Descriptives , Licence 1 en économie	France
2018-2019	Théorie des Jeux , Licence 3 en économie	France
2015-2017	Probabilités , Licence 2 en Physique	Cameroun
2011-2012	Informatique (Systeme d'exploitation 1) , Licence 2 en Mathématiques et Informatiques	Cameroun

Affiliations

Commission de Recherche de l'UCP (Université de Cergy-Pontoise)

MEMBER

- Assise sur les améliorations des conditions de recherche des doctorants.
- Contribution de vie étudiante et de campus.

Cergy-Pontoise, France

Jan. 2018 - PRESENT

Conseil de l'école doctorale EM2PSI de l'UCP

MEMBER

- Assise sur l'attribution des contrats doctoraux.

Cergy-Pontoise, France

Jan. 2019 - PRESENT

THEMA (Théorie économique, modélisation et applications)

TEMPORARY MEMBER

Cergy-Pontoise, France

Sep. 2017 - PRESENT

AFSE (Association Française de Science Economique)

MEMBER

France

Feb. 2019 - PRESENT

EEA (European Economic Association)

MEMBER

Feb. 2019 - PRESENT

Social Choice and Welfare

REFEREE

Extracurricular Activity

AIDES (Civic & Social Organization Pantin, Île-de-France)

VOLUNTEER

- Support People who suffer from AIDS.

France

Jan. 2018 - PRESENT

Amnesty International France

MEMBER

- Support the purpose of the organization especially the fight against corruption

France

Dec. 2019 - PRESENT

Université de Dschang, Département de Mathématique Informatique

DÉLÉGUÉ DE FILIÈRE OPTION MATHÉMATIQUES APPLIQUÉES

- Gained experience in communication and management with students.
- Planifier les travaux dirigés avec des enseignants,
- Participate to administration meeting as representative of students.
- Organize meeting with other responsible of students in the same Faculty, and delegate some tasks.

Cameroun

Sept 2011 - Aug 2012

Université de Dschang, Département de Mathématique Informatique

DÉLÉGUÉ DE NIVEAU IN LICENCE 2

- Administration, Communication, Planification, Meeting and Management.

Cameroun

Sept 2010 - Aug 2012

Referees

Mathieu MARTIN

France

PROFESSIONAL EMAIL ADDRESS : MATHIEU.MARTIN@U-CERGY.FR

- Professional Business Address : CY Cergy Paris Université, 33 boulevard du port, 95011 Cergy-Pontoise Cedex.

Marcus PIVATO

PROFESSIONAL EMAIL ADDRESS : MARCUS.PIVATO@CYU.FR

- **Homepage** : <https://sites.google.com/site/marcuspivato/home>.

France

Bertrand TCHANTCHO

E-MAIL : : BTCHANTCHO@YAHOO.FR

- **Professional Business Address** : Ecole Normale Supérieure de Yaoundé, BP 47 Yaoundé, Cameroon.

Cameroon

Zéphirin NGANMENI

PROFESSIONAL EMAIL ADDRESS : ZEPHIRIN.NGANMENI@UNIV-PARIS8.FR

- **Professional Business Address** : Laboratoire d'Economie Dionysien, Bureau D117, Université Paris 8, France.

France

Cedric DEFFO SIKOUNMO

PROFESSIONAL EMAIL ADDRESS : CEDRIC.DEFFO-SIKOUNMO@HDTECHNOLOGY.FR

- **Professional Business Address** : HDTECHNOLOGY, 8 rue Pascal, 69509 Bron.

France