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Placement Director: Uta Schoenberg
Graduate Coordinator: *Daniella Harper*

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Research Fields

PRIMARY: Market Design (theoretical and empirical)

SECONDARY: Applied theory, Structural econometrics

Current Position

University College London
Research Associate, sponsored by Professor Vasiliki Skreta

London, U.K
Sep 2017 to present

Doctoral Studies

Paris School of Economics - EHESS
Thesis title: Essays on Matching Theory and Applications
Committee: Francis Bloch, Estelle Cantillon, Yeon-Koo Che, Sidartha Gordon, Julien Grenet and Olivier Tercieux (advisor)

Paris, France
Sep 2013 - Sep 2017

Columbia University
Visiting Scholar, sponsored by Professor Yeon-Koo Che

New-York, U.S.A
Sep 2015 - May 2016

Pre-Doctoral Studies

Paris School of Economics
M.A, Analysis and Policy in Economics (Magna Cum Laude)

Paris, France
2012-2013

University Paris II Panthéon Assas
M.A, Ingénierie Economique et Statistique (Summa Cum Laude)

Paris, France
2011-2012

University Paris II Panthéon Assas
B.A, Analyse Economique (Magna Cum Laude)

Paris, France
2010-2011

References

Professor Yeon-Koo Che
Columbia University
Department of Economics
yc2271@columbia.edu
[website](#)

Professor Yinghua He
Rice University
Department of Economics
yinghua.he@gmail.com
[website](#)

Professor Vasiliki Skreta (*postdoc supervisor*)
University College London, UT Austin, and CEPR
vskreta@gmail.com
[website](#)

Professor Olivier Tercieux (*thesis supervisor*)
Paris School of Economics
otercieux@gmail.com
[website](#)

Teaching Experience

University Paris II Panthéon Assas
T.A., Undergraduates: Macroeconomics, Microeconomics, Industrial Organization

Paris, France
2016-2017

University Paris I Panthéon Sorbonne
T.A., Undergraduates: First year Mathematics, First year Microeconomics

Paris, France
2013-2015

University Paris II Panthéon Assas <i>T.A., Graduates: Public Economics</i>	Paris, France 2012-2013
University Paris II Panthéon Assas <i>T.A., Undergraduates: First year Microeconomics, First year Macroeconomics</i>	Paris, France 2011-2012

Relevant Positions Held

Columbia University <i>Research Assistant to Professor Yeon-Koo Che</i> <i>Statistical analysis of the NYC high school choice</i>	New-York, U.S.A Nov 2015 - Mar 2016
Paris School of Economics <i>Research Assistant to Professor Olivier Tercieux</i> <i>Simulations on matching markets</i>	Paris, France June - August 2012
University Paris II Panthéon Assas <i>Research Assistant to Professor Bertrand Crettez</i>	Paris, France June and September 2011

Honors, Scholarships and Fellowships

Chancellerie des Universités de Paris <i>Nogaro Thesis Prize</i>	October 2018
Paris Sciences Lettres (PSL) <i>PhD Award PSL SHS, Prize in "Law, Economics and Management"</i>	May 2018
National Agency for Research (ANR) <i>ANR Grant JCJC 2017, Member of the project PAIRED_KIDNEY_DONATION</i> Scientific coordinator: Pr. Victor Hiller (Université Paris II Panthéon Assas).	2017 - 2021
University Paris II Panthéon Assas <i>Temporary Teacher and Researcher Scholarship (ATER contract)</i>	2016 - 2017
Columbia University - University Paris I Panthéon Sorbonne <i>Alliance Doctoral Mobility Grant</i>	Feb - May 2016
University Paris I Panthéon Sorbonne <i>Doctoral Scholarship</i>	2013 - 2016
University Paris II Panthéon Assas <i>Best Dissertation in Macroeconomics</i>	2011

Working Papers

The Design of Teacher Assignment: Theory and Evidence ([latest version](#) and [supplementary material](#))

with Olivier Tercieux (CNRS & PSE) and Camille Terrier (HEC Lausanne)

Job Market Paper, *R&R Review of Economic Studies*

Abstract: To assign teachers to schools, a modified version of the well-known deferred acceptance mechanism has been proposed in the literature and is used in practice. We show that this mechanism fails to be fair and efficient for both teachers and schools. We identify a class of strategy-proof mechanisms that cannot be improved upon in terms of both efficiency and fairness. We show that these mechanisms perform much better by adopting a large market approach and by using a rich dataset on teachers' applications in France. For instance, the number of teachers moving from their positions more than doubles under our mechanism.

▷ *Newsletter PSE n22* (in french), July 2015, Paris School of Economics ([pdf](#))

Teacher Assignment and Minimal Envy Mechanisms ([latest version](#))

Abstract: We investigate the teacher assignment problem where one has to assign both newly tenured teachers without an initial assignment and tenured teachers with an initial position. Each school has a priority ordering over the teachers. In this framework, there is no mechanism that is both i) individually rational (IR), i.e., that assigns each teacher to a school that she weakly prefers to her initial one, and ii) stable, i.e., there are no blocking pairs: teachers and schools that are not assigned together and would prefer to be. A mechanism has minimal envy if there is no other mechanism that always leads to a set of blocking pairs included in the one of the former mechanism. We show that the modified Deferred Acceptance mechanism (DA) is a minimal envy mechanism in the set of IR and strategy-proof mechanisms. We also show that, in a one-to-one setting, an extension of the Top Trading Cycle (TTC*) mechanism is also a minimal envy mechanism in the set of IR, strategy-proof and Pareto-efficient mechanisms. These results generalize the results in the school choice literature concerning the standard DA and TTC mechanisms and show the interest of using the minimal envy relation in settings where no stable matching exists.*

Matching with Ownership ([latest version](#))

Abstract: We consider a hybrid model at the intersection of the standard two-sided matching market as proposed by Gale and Shapley (1962) and a housing market as proposed by Shapley and Scarf (1974). Two sets of agents have to be matched in pairs to a common set of objects. Agents of one type have preferences that depend on the object they are matched to but also on the agent of the other type matched to this object. The crucial difference lies in the fact that the common side here is interpreted as an object and has no intrinsic preferences over the agents matched to it. In this context, stable matchings may fail to exist. However, we introduce a natural definition of ownership of the objects that determines which agent owns the object he is matched to. In defining a stability notion where only owners could ask other agents to join them, we show that stable matchings exist for a very natural class of ownerships: those that give the ownership to agents of the same side. Even if this structure shares similarities with the classical two-sided matching framework, we show an important difference: stable matchings and Pareto-efficient matchings may be disjoint implying that the core may be empty in this setting. To further investigate the link with the housing market literature, we introduce an initial allocation and define a core notion with respect to this initial allocation. We also show that, contrary to the standard setting, this core may be empty. However, we show that, in this housing market framework, there always exists a Pareto-efficient matching that is not blocked by any coalition of size two. In both settings, pairwise stability is the only minimal requirement that one can ensure.

An Algorithm to Increase Teacher Mobility without Hurting Deprived Regions ([latest version](#))

with Olivier Tercieux (CNRS & PSE), and Camille Terrier (HEC Lausanne)

Abstract: The assignment of teachers to schools incorporates many important issues in education policies: attractiveness of the profession, geographic inequalities, achievements of students and so on. In many countries such assignment is centralized. We propose a generalization of the TOBE algorithm proposed in Combe, Tercieux, and Terrier (2018) to the framework where there are newly tenured teachers without any initial assignment, tenured teachers asking for a reassignment and possible empty seats in schools. Such generalization keeps the good properties of efficiency and strategy-proofness. It also extends the so called You-Request-My-House-I-Get-Your-Turn (YRMH-IGYT) algorithm proposed by Abdulkadiroglu and Sonmez (2003) for the housing market framework with vacant houses and new applicants to the two-sided and many-to-one matching setting. Using French data on the assignment of teachers, we show the potential benefits in terms of movement brought by the algorithm and the finer controls that it offers in dealing with potentially deprived regions and geographic inequalities.

▷ *Policy Brief n24* (in french), April 2016, Institute for Public Policy. ([pdf](#))

▷ *Press coverage:* [France Inter](#) (4/8/16), [Café Pédagogique](#) (4/8/16), [AEF Info](#) (4/7/16), [TOUT EDUC](#) (4/8/16), [Café Pédagogique](#) (5/17/16)

Work in Progress

A Market Design Solution to Unfair Distribution of Teachers in Schools

with Umut Dur (North Carolina), Olivier Tercieux (CNRS & PSE), Camille Terrier (HEC Lausanne), and Utku Unver (Boston College)

Kidney Exchange in the Shadow of Desensitization

with Yinghua He (Rice University), Victor Hiller (LEMMA, Paris II), and Olivier Tercieux (CNRS & PSE)

Perspectives on the Kidney Exchange Program in France ([slides](#))

with Benoit Audry (ABM), Yinghua He (Rice University), Victor Hiller (LEMMA, Paris II), Christian Jacquelinet (ABM), Marie-Alice Macher (ABM), and Olivier Tercieux (CNRS & PSE)

Publications in French journals and others

Faut-il sauver les algorithmes d'affectation ? Affelnet, le mouvement des enseignants et Parcoursup (in french)

with Victor Hiller (Paris II Panthéon-Assas), Olivier Tercieux (CNRS & PSE), and Camille Terrier (MIT) Terra Nova, 06-06-18 ([pdf](#))

▷ *Press coverage:* [Marianne](#) (7/16/18), [La Recherche](#) (n537, July-August 2018), [Mediapart](#) (6/13/18), [France Info](#) (6/8/18), [Le Monde](#) (6/7/18), [Libération](#) (6/6/18), [Libération](#) (5/6/18)

Il faudra prendre avec beaucoup de prudence les résultats affichés par Parcoursup à la fin de l'été (in french)

with Victor Hiller (Paris II Panthéon-Assas), Olivier Tercieux (CNRS & PSE), and Camille Terrier (MIT) Op-ed in Le Monde, 05-23-18 ([online article](#))

Are Affirmative Action Policies so Impossible ? (in english)

forth. *Revue d'Economie Politique* ([final draft](#), [codes](#))

Améliorer la mobilité des enseignants : un nouvel algorithme ne pénalisant pas les académies les moins attractives (in french)

with Olivier Tercieux (CNRS & PSE) and Camille Terrier (MIT)
Education & Formations, Vol. 92, pp. 57-75 (2016) ([pdf](#))
▷ Press coverage: Acteurspublics.com (01-04-17)

Seminars, Conferences and Research Events

2018.....	
15th workshop Matching in Practice: ZEW, Mannheim, Germany	October
Organizer of the workshop "Kidney Allocation : Evaluation and Perspectives": PSE, Paris, France	June
French Economic Association (AFSE) Congress: Paris, France	May
Microeconomic Theory Brown Bag Lunch: UCL, London, United-Kingdom	February
2017.....	
Microeconomic Theory Brown Bag Lunch: UCL, London, United-Kingdom	March
2017 Lisbon Meetings in Game Theory and Applications: Lisbon, Portugal	November
Departemental Seminar: City, University of London, London, United-Kingdom	October
Microeconomic Theory Brown Bag Lunch: UCL, London, United-Kingdom	October
2016.....	
Fourgeaud Seminar: DG Trésor, French Ministry of Economics and Finance, Paris, France	October
69th European Meeting of the Econometric Society: Geneva , Switzerland	August
2016 Asian Meeting of the Econometric Society: Kyoto , Japan	August
"Conference on Market Design and Micro Theory": Seoul, South Korea	August
5th World Congress of the Game Theory Society: Maastricht , The Netherlands	July
13th Meeting of the Society for Social Choice and Welfare: Lund , Sweden	June
2015.....	
Microeconomics Theory Colloquium: Columbia University, New-York, U.S.A.	December
EDP Jamboree 2015: LSE, London, U.K	September
AFSE Conference (French Economic Association): Rennes, France	June
Theory Organizations and Markets Seminar: PSE, Paris, France	June
LEMMA Seminar: Paris II Panthéon Assas, Paris, France	May
2014.....	
Designing Matching Markets: WZB, Berlin, Germany	August
Summer School on Matching and Market Design: IIAS, Jerusalem, Israel	July
Advances in Market Design: PSE, Paris, France	June
Matching in Practice: WZB, Berlin, Germany	June
2013.....	
School on Statistics and Economics of Networks: ENSAE, Paris, France	November
Advances in Matching Markets and Mechanisms: PSE, Paris, France	July
Summer School on Matching Problems, Markets and Mechanisms: Budapest, Hungary	June

Referee

Economics of Education Review, Games and Economic Behavior, Journal of Economic Theory, Journal of Public Economic Theory, Operations Research Letters, Review of Economic Design, Theory and Decision

Miscellaneous

English:	Fluent
French:	Native
Coding:	<i>LaTeX, Python, Scilab, Matlab, R, basics in Stata, basics in Mathematica, basics in C++</i>
Board member of SYNAPSE, PSE's student association:	<i>Treasurer (2012-2013, 2014-2015) and Secretary (2013-2014)</i>
Board member of PSE Alumni:	<i>President (2016-present)</i>