

Courtney Brell

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Department of Economics, University College London
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Placement Director: Prof. Attila Lindner (a.lindner@ucl.ac.uk)

Doctoral Studies

PhD in Economics, UCL

2027 (expected)

References:

Christian Dustmann (advisor)
Professor of Economics
University College London
c.dustmann@ucl.ac.uk

Jérôme Adda
Professor of Economics
Bocconi University
jerome.adda@unibocconi.it

Uta Schönberg
Professor of Economics
University of Hong Kong
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Ian Preston
Professor of Economics
University College London
i.preston@ucl.ac.uk

Fields

Labour economics, health economics, applied structural microeconomics

Previous Education

MRes in Economics, University College London Distinction. Thesis: <i>A dynamic discrete choice model of vintage human capital investment</i>	2019 – 2020
MSc in Economic Policy, University College London Distinction. Thesis: <i>The effect of composition on gender wage gaps across the modern German labor market</i>	2017 – 2018
Graduate Diploma in Economics, University of London Distinction	2013 – 2016
PhD in Physics, University of Sydney Thesis: <i>Many-body models for topological quantum information</i>	2009 – 2014
BSc (Advanced) (Honours) in Physics, University of Wollongong First Class Honours, University Medal	2005 – 2008

Job Market Paper

Routes to Retirement: Pension Design, Health, and Occupation

For those who can no longer work at older ages due to poor health or strenuous occupation, pension age increases will be ineffective at extending their working lives. I investigate potential targeted pension policies which aim to protect those incapable of work while extending the working lives of those who can. Estimating a dynamic structural model of occupational choice, health, and retirement on German microdata, I simulate counterfactual policy regimes, including exemptions based on health status or career history, and find that the cost of such a policy is set less by who it protects than by who it exempts by mistake. Exempting those a later pension age would not keep in work costs little, since their entitlements are small and the pension partly replaces disability or unemployment benefits they would have otherwise drawn. In contrast, exempting someone who would otherwise have worked costs far more, mostly in lost tax and social security contributions rather than pension payments themselves. Changes in career choices as a response to policies of this kind are present but modest, and the popularity of such policies depends on when you ask, providing the biggest welfare gains for older cohorts but having broadest popularity among middle-aged cohorts for whom they still provide insurance value.

Publications

The labor market integration of refugee migrants in high-income countries

with Christian Dustmann and Ian Preston. *Journal of Economic Perspectives*, 34(1), 94–121, 2020

Immigration and wage growth: the case of Australia

with Christian Dustmann. In *Low Wage Growth*, Reserve Bank of Australia Annual Conference, 2019

Working Papers

The Changing Nature of Work and Population Health

with Jérôme Adda and Christian Dustmann

Research Positions

Research Officer

2018 – present

Centre for Research and Analysis of Migration (CReAM), University College London

Research Associate

2022 – present

ROCKWOOL Foundation Berlin (RFBerlin)

Presentations

2026 Health and Economic Well-Being (Berlin); RFBerlin Workshop on Topics in Applied Microeconomics (Berlin); Workshop on Topics in Labour Economics (Nizza Monferrato)

2024 GradAB Perspectives on (Un-)Employment (Nuremberg); Workshop on Topics in Labour Economics (Nizza Monferrato); RFBerlin Winter Workshop (Berlin)

2023 RFBerlin Spring Workshop (Berlin); Workshop on Topics in Labour Economics (Nizza Monferrato)

2022 European Winter Meeting of the Econometric Society (Berlin); Workshop on Topics in Labour Economics (Nizza Monferrato)

Teaching

Postgraduate Teaching Assistant, University College London

2020 – 2026 Real Analysis and Probability with Economic Applications

2021 – 2022 Economics of Education

Scholarships and Awards

2023 – 2026 ROCKWOOL Foundation Studentship

2023 Best MRes Economics Teaching Assistant, University College London

2020 – 2023 ESRC Studentship, UBEL Doctoral Training Partnership

2020 Dean's List, MRes Economics, University College London

2019 Best Dissertation Prize, MSc Economic Policy, University College London

2011 CISRA Postgraduate Physics Prize for best publication, University of Sydney

2011 Postgraduate Research Prize for outstanding academic achievement, University of Sydney

2009 – 2013 Australian Postgraduate Award; Denison Merit Award, University of Sydney

2008 University Medal, University of Wollongong

Refereeing

Review of Economic Studies, Journal of Labor Economics, The Economic History Review

Skills

Computational: Python, MATLAB, Stata

Data: Danish administrative registers, EU-LFS, German SOEP, German SIAB

Language: English (native)

Physics Research

Research positions

Postdoctoral Fellow in Physics, 2016 – 2017, Perimeter Institute for Theoretical Physics, Canada

Postdoctoral Researcher in Physics, 2013 – 2016, Leibniz Universität Hannover, Germany

Visiting Graduate Fellow in Physics, 2012, Perimeter Institute for Theoretical Physics, Canada

Publications

Topological quantum error correction in the Kitaev honeycomb model, with Y.-C. Lee and S. T. Flammia. J. Stat. Mech. (2017) 083106

Classical simulation of quantum error correction in a Fibonacci anyon code, with S. Burton and S. T. Flammia. Phys. Rev. A 95, 022309 (2017)

A proposal for self-correcting stabilizer quantum memories in 3 dimensions (or slightly less). New J. Phys. 18, 013050 (2016)

Generalized color codes supporting non-Abelian anyons. Phys. Rev. A 91, 042333 (2015)

Generalized cluster states based on finite groups. New J. Phys. 17, 023029 (2015)

Thermalization, error correction, and memory lifetime for Ising anyon systems, with S. Burton, G. Dauphinais, S. T. Flammia and D. Poulin. Phys. Rev. X 4, 031058 (2014)

Perturbative 2-body parent Hamiltonians for projected entangled pair states, with S. D. Bartlett and A. C. Doherty. New J. Phys. 16, 123056 (2014)

Toric codes and quantum doubles from two-body Hamiltonians, with S. T. Flammia, S. D. Bartlett and A. C. Doherty. New J. Phys. 13, 053039 (2011)

Talks

Quantum Information Processing (2015), Central European Quantum Information Processing (2015), Benasque Symposium on Topological Quantum Information (2013), Australian Institute of Physics Congress (2012) and the Sydney Quantum Information Theory Workshop (2010, 2013, 2017); discussion chair at Fault-Tolerant Quantum Technologies (2016); seminars at Caltech, Freie Universität Berlin, Imperial College London, MPI for Quantum Optics, Perimeter Institute, RWTH Aachen, UCL, University of Basel, University of British Columbia, University of Copenhagen, University of Leeds.

Outreach

Group mentor, International Summer School for Young Physicists (2017); speaker, *Ask a Scientist* lecture series, Perimeter Institute (2017).

Teaching

Lecturer, Leibniz Universität Hannover, 2016: designed and taught the graduate course *Topological Quantum Systems*

Assistant Lecturer and Senior Tutor, Leibniz Universität Hannover, 2015: graduate course *Advanced Quantum Mechanics*

Research supervision, Leibniz Universität Hannover, 2014 – 2016: co-supervised three MSc students and one PhD student

Laboratory supervisor and demonstrator, University of Sydney, 2009 – 2013: undergraduate physics laboratories