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**EDUCATION:**

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| Ph.D. in Economics, *KU Leuven* | *2021–present* |
| Visiting Researcher, *Tilburg University* | *02.2024–04.2024* |
| M.Sc. *magna cum laude* in Advanced Studies of Economics, *KU Leuven* | *2020–2021* |
| M.Sc. *magna cum laude* in Economics, *KU Leuven* | *2019–2020* |
| Diploma in Impact Evaluation, *Pontificia Universidad Católica de Chile* | *2016* |
| M.Sc. in Economics and Public Policies, *Universidad Adolfo Ibáñez* | *2014–2015* |
| B.S. in Business Administration Sciences, *Universidad Adolfo Ibáñez* | *2010–2013* |

**FIELDS OF INTEREST:**

Labor Economics, Applied Microeconomics, Applied Econometrics

**PUBLISHED ARTICLES:**

[1] Artificial intelligence and firm-level productivity
with Dirk Czarnitzki
***Journal of Economic Behavior and Organization***, 211, July 2023, 188-205
[*download*]

[2] Artificial intelligence and industrial innovation: evidence from firm-level data
with Dirk Czarnitzki and Christian Rammer
***Research Policy***, 51(7), September 2022, 104555
[*download*]

**COMPLETED WORKING PAPERS:**

[1] Parental personality and child skills formation
***Job Market Paper***
[*download*]

This paper studies the influence of parental personality on child development throughout the life cycle. Leveraging detailed individual-level data from the PSID and its Child Development and Wellbeing Supplements, we show significant heterogeneity concerning parental personality, children's skills, accepted wages, and time-use decisions. Firstly, we observe that personality traits impact parents' wages and time allocation between market work and child-rearing. Secondly, our result suggests systematic heterogeneity in the relative input productivity (or quality) of childcare time across parents with different personality levels. To provide a rationale for these observed patterns, we identify and estimate a life-cycle model that incorporates parental personality and considers household decisions with an endogenous formation for a child's cognitive and noncognitive skills. We employ the estimated model to determine the optimal targeting of simulated interventions tailored to children from parents with diverse personality traits. Our results reveal the limitations of one-size-fits-all parenting support and child welfare policies that do not acknowledge the diverse impacts of parental personality on child development.

[2] Does personality affect the allocation of resources within households?
*Revise & Resubmit, Review of Economics of the Household*
[*download*]

This paper examines whether personality influences the allocation of resources within households. To do so, I model households as couples that make Pareto-efficient allocations and divide resources according to a distribution function. Using a sample of Dutch couples from the LISS survey with detailed information on consumption, labor supply, and personality traits at the individual level, I find that personality affects intrahousehold allocations through two channels. Firstly, the level of these traits act as preference factors that shape individual tastes for consumed goods and leisure time. Secondly, by testing distribution factor proportionality and the exclusion restriction of a conditional demand system, I observe that differences in personality between spouses act as distribution factors. Specifically, these differences in personality impact the allocation of resources by affecting the bargaining process within households. For example, women who are relatively more conscientious and engage more cognitively than their male partners receive a larger share of intrafamily resources.

[3] Evidence on the adoption of artificial intelligence: the role of skills shortage in German firms
with Paolo Carioli and Dirk Czarnitzki
*Under revision*
[*download*]

Artificial Intelligence (AI) is considered to be the next general-purpose technology, with the potential of performing tasks commonly requiring human capabilities. While it is commonly feared that AI replaces labor and disrupts jobs, we instead investigate the potential of AI for overcoming increasingly alarming skills shortages in firms. We exploit unique German survey data from the Mannheim Innovation Panel on both the adoption of AI and the extent to which firms experience scarcity of skills. We measure skills shortage by the number of job vacancies that could not be filled as planned by firms, distinguishing among different types of skills. To account for the potential endogeneity of skills shortage, we also implement instrumental variable estimators. Overall, we find a positive and significant effect of skills shortage on AI adoption, the breadth of AI methods, and the breadth of areas of application of AI. In addition, we find evidence that scarcity of labor with academic education relates to firms exploring and adopting AI.

[4] Personality traits, the marriage market, and household behavior
with Mariia Kovaleva
[*download*]

We develop an empirical framework to analyze the dynamic effect of personality traits in marriage market patterns and intrahousehold decisions. We exploit detailed information at the individual level from the HILDA survey about consumption, labor supply, time use, and personality traits (as measured by the Big Five). First, we document that personality types are related to marital and divorce patterns, time allocated to both market labor and non-market labor activities, and the evolution of earnings. Next, to rationalize these empirical facts, we build a life-cycle model that integrates endogenous household formation and collective household choices under limited commitment. Our framework allows personality to affect both wages and individual preferences. In the latter, personality traits enter indirectly through the intrahousehold production of a public good and the utility of marriage (match quality). We use the estimates of our model to conduct policy counterfactuals associated with sorting in the marriage market and intrahousehold behavior.

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**WORK IN PROGRESS:**

[1] What explains the gains from a stable marriage? A revealed preference analysis
with Laurens Cherchye

[2] The arguable evolution of Chilean income inequality
with Leonardo Cáceres

[3] Artificial Intelligence and the demand for labor: evidence from German firm-level
with Dirk Czarnitzki and Bettina Peters

[4] Technological change and intrahousehold resources allocation

[5] Legal cohabitation, household insurance, and female labor supply
   with Valeria Cordova and Wietse Leleu

[6] Female human capital investment and household dynamics
   with Marcos Balmaceda

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**TEACHING EXPERIENCE:**

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| Economic Evaluation of Economic Policy, *KU Leuven* | *Spring 2023* |
| T.A. for Prof. Frederic Vermeulen, graduate-level | |
| Master's Thesis Advisor, *KU Leuven* | *2022–present* |
| For Prof. Frederic Vermeulen & Prof. Laurens Cherchye, graduate-level | |
| Econometrics, *Universidad Adolfo Ibáñez* | *Spring & Fall 2014* |
| T.A. for Prof. Julio Guzmán, undergraduate level | |

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**RESEARCH ASSISTANCE:**

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| Prof. Dirk Czarnitzki, *KU Leuven* | *2020–2021* |
| Prof. Laurens Cherchye & Prof. Frederic Vermeulen, *KU Leuven* | *2020* |
| Prof. Claudio Agostini & Prof. Ignacio Briones, *Universidad Adolfo Ibáñez* | *2017* |

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**OTHER EXPERIENCE:**

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|---|---:|
| Bureau of Studies and Agricultural Policies, *Ministry of Agriculture of Chile* | *2017–2019* |
| Public Policy Research Center, *Pontificia Universidad Católica de Chile* | *2015–2017* |
| Superintendency of Pensions, *Ministry of Work and Social Security of Chile* | *2015* |

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**GRANTS:**

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| Full doctoral scholarship, *KU Leuven* | *2021–2025* |
| European Economic Association's (EEA) travel grant | *2023* |

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**PRESENTATIONS:** 2021: Public-Labour-Health Seminar (Leuven - seminar)

2022: ECORES Summer School (Leuven); Household Economics Gathering (Brussels); 9th ZEW/MaCCI Conference (Mannheim)

2023: Trans-Atlantic Doctoral Conference (TADC, London); European Society of Population Economics Conference (ESPE, Belgrade); European Economic Association Conference (EEA-ESEM, Barcelona); European Association of Labour Economists Conference (EALE, Prague); 18th Belgian Day of Labour Economists (BDLE, Brussels)

2024: Structural Econometrics Group Seminar (Tilburg - seminar); TSE Workshop on the Economics of Education (Toulouse); New Advances in Family Economics Workshop (Paris - poster); Inaugural Conference of the French Association of Population Economists (AFÉPOP, Paris); Scottish Economic Society Conference (SAS, Glasgow); 9th LEER Conference on Education Economics (LEER, Leuven); Applied-Micro Leuven Workshop (Leuven)

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**EDITORIAL SERVICE:** Referee for *Research Policy (x3)*, *Economic Modelling*, *Economics of Innovation and New Technology*, *Science and Public Policy*

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**LANGUAGES:** Spanish (native), English (proficient), French (B1)

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**REFERENCES:**

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