# $\frac{Northwestern}{\text{Economics}}$

# **Modibo Camara**

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Contact Information	Department of Economics Northwestern University 2211 Campus Drive Evanston, IL 60208		Mobile: 202-415-2751 mcamara@u.northwestern.edu https://mkcamara.github.io/ Citizenship: United States, Germany	
Fields	Research: Microeconomic Theory, Economics & Computation Teaching: Microeconomics, Econometrics			
Education	Ph.D., Economics, Northwestern University (anticipated) 2022 Dissertation: Complexities in Economic Theory			
	Committee: Eddie Dekel (Chair), Jason Hartline (Chair), Marciano Siniscalchi, Jeffrey Ely			
	M.A., Economics, Northwestern University  B.A., Mathematics & Economics, University of Pennsylvania  201			
	B.A., Mathematics & Economics, University of Pennsylvania			
Fellowships &	Distinguished TA Award			2021-22
Awards	Dissertation University Fellowship, Northwestern University			2021-22
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<b>Teaching Experience</b>	Teaching Assistant, Northwestern University			2017-2021
	Econometrics (graduate), Econometrics (undergrad), Microeconomics (undergrad)			
Research Experience	Research Intern, Nicole Immorlica, Microsoft Research 2020			
	Research Assistant, Eddie Dekel, Northwestern University Project Intern, Yian Liu, Federal Reserve Board of Governors Intern, Esen Onur, Commodity Futures Trading Commission			2019
				2015
				2014
	Research Assistant, Susan	Wachter, University of Per	nnsylvania	2013-14
Conferences	Cornell ORIE (invited)			2021
	Economics and Computation (invited)			2021
	Risk, Uncertanty, and Decision (RUD)			2021
	Decision: Theory, Experiments, and Applications (D-TEA)		2021	
	North American Summer Meeting of the Econometric Society		c Society	2021
Africa Meeting of the Econometric Society		nometric Society		2021
	European Summer Meeting	g of the Econometric Socie	ety	2021
	World Congress of the Game Theory Society (GAMES)			2021
	Foundations of Computer Science (FOCS)			2020
	Econometric Society Winter Meeting (Europe)			2020
	Young Economists Symposium (YES)			2020
	Economics Graduate Student Conference (EGSC)			2020
	Midwest Theory Day			2018
Refereeing	American Economic Revie	w, Journal of Mathematica	al Economics	

#### Job Market Paper

# "Computationally Tractable Choice"

Abstract: This paper incorporates time constraints into decision theory, via computational complexity theory. I use the resulting framework to better understand common behavioral heuristics known as choice bracketing. My main result shows that a time-constrained agent who satisfies the expected utility axioms must have a Hadwiger separable utility function. This separability condition is a relaxation of additive separability that allows for some complementarities and substitutions but limits their frequency. One implication of this result is that a time-constrained agent may be better off violating the expected utility axioms. This can occur when the agent wants to maximize the expected value of a utility function that is not Hadwiger separable.

#### Other papers

#### "Mechanisms for a No-Regret Agent: Beyond the Common Prior" (with J. Hartline, A. Johnsen)

Abstract: A rich class of economic problems can be understood as games of incomplete information played by a policymaker who commits to a policy and an agent who responds. Typically, optimal policies depend on both the policymaker and the agent's prior knowledge about the environment. To get around this, researchers often (a) assume that both the policymaker and the agent have substantial prior knowledge, or (b) assume no knowledge and optimize against the worst-case. We propose online learning as a way to combine the superior performance of (a) with the robustness of (b). We study a repeated interaction where both the policymaker and the agent may learn about the environment over time. We develop simple calibrated policies that ensure bounded regret, relative to the best-in-hindsight static policy. Our guarantees are prior-free and hold even in highly non-stationary environments. They require novel behavioral assumptions that capture concepts like "rationality" or "unpredictability" without relying on beliefs.

## "Mechanism Design with Common Data"

Abstract: In many settings, understanding an agent's beliefs can be the difference between a successful policy and one that fails dramatically. Unfortunately, in many instances, the rich behavioral or survey data needed to identify an agent's beliefs may not be available. In this paper, I propose a modeling assumption that bypasses this issue, and show that it can highlight important policy trade-offs not captured by existing models. The core idea is straightforward: if the available data convincingly demonstrates some fact about the world, the agent should believe that fact. Otherwise, her beliefs are left unspecified. I develop this approach in the context of incomplete-information games where a policymaker commits to a policy, an agent responds, and both have access to a public dataset. It turns out that policies that are too complex may be suboptimal because they lead to unpredictable behavior. To balance the benefits of policy complexity with its costs, I develop a method called strategic regularization and motivate it through both theoretical guarantees and illustrative examples.

#### Languages

English (fluent), German (native), Spanish (intermediate)

### References

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