

Mohamed Doukali

CONTACT INFORMATION	University of Montreal (UdeM) Department of economics PO Box 6128, Stn Centre-ville Montreal, QC H3C 3J7 Canada	Phone: +1 514 980 2687 Email: mohamed.doukali@umontreal.ca https://sites.google.com/site/doukalimohamed1 Languages: English, French, Arabic.
RESEARCH AREAS	Econometrics (theory and applications), Financial Economics.	
Ph.D THESIS	University of Montreal (2011-2016). Fields of specialization: Primary: Econometrics (theory and applications). Secondary: Financial economics. Thesis: Regularized jackknife estimation with many instruments. Date of completion: November 2016. Advisor: Marine Carrasco (University of Montreal).	
OTHER STUDIES	M.Sc in Economics and Statistics, National Institute of Statistics and Applied Economics (INSEA), Morocco, Rabat. (2006-2009). Classes Préparatoires aux Grandes Ecoles, (Mathematics and Physics), Morocco, Tanger. (2004-2006).	
RESEARCH	Jackknife LIML estimator with many weak instruments using regularization Techniques. (Job market paper). Regularized Jackknife IV with many instruments, with Marine Carrasco. Submitted to "Annals of Economics and Statistics". Testing overidentifying restrictions with many instruments and heteroskedaticity using regularized jackknife IV. with Marine Carrasco. Optimal portfolio selection using regularization, (in progress). Select the valid and relevant moments, with Guy Tchuente, (in progress).	
FELLOWSHIPS	Ph.D. Fellowship, CIREQ & Economics Department, UdeM, 2011-2016. Tuition fees Waiver Scholarship, School of Graduate Studies, UdeM, 2011-2016.	
TEACHING	Lecturer: ECN1160: Analysis of Economic Data, UdeM. ECN1260: Econometrics I, UdeM. ECN1040: Microeconomics UdeM. Teaching Assistant: ECN2045: Microeconomics Theory II. ECN6350: Elements of Econometrics (graduate). ECN1160: Analysis of Economic Data, UdeM. ECN2960: Economics and Public Finance, UdeM. ECN2565: Industrial Organization UdeM. ECN1075: Mathematical Economics II, UdeM. ECN1075: Mathematical Economics I, UdeM. ECN1040: Microeconomics, UdeM.	

PROFESSIONAL EXPERIENCE Analyst:
National Agency for Promotion of Small and Medium Enterprises. Rabat, Morocco (Dec 2009- Aug 2011).
Intern: Office Cherifien des Phosphates (OCP), Casablanca, Morocco. (Feb-May 2009).
Intern: Moroccan observatory of the Environment, Rabat, Morocco, (July-Aug 2008).

CONFERENCES AND SEMINARS Econometrics Conference Montreal in honor of Jean-Marie Dufour, Montreal, Canada, May 2016.
13th CIREQ Conference, McGill University, Montreal, Canada, May 2016.
Econometrics Seminar, Queen's University, Kingston, Canada, April 2016.
49th Annual Conference of the Canadian Economics Association, Toronto, Canada, May 2015.
54th Société Canadienne de Science Économique Congress, Montreal, Canada, May 2015.
Marcel-Dagenais Econometrics Seminar, University of Montreal, Montreal, Canada, November 2015.
11th CIREQ Conference, Concordia University, Montreal, Canada, May 2014.
Econometrics Seminar, University of Montreal, Montreal, Canada, May 2014.

DISCUSSION Canadian Economic Association (CEA), Toronto (Canada), 2015.

OTHERS Memberships:
Center for Interuniversity Research and Quantitative Economics (CIREQ).
Canadian Economics Association.
Société canadienne de science économique.

Computer skills:
MATLAB, STATA, SPSS, EViews, R, GAMS.

REFERENCES Marine Carrasco
Department of Economics +1 (514)-343-2394
University of Montreal marine.carrasco@umontreal.ca

Benoit Perron
Department of Economics +1 (514) 343-2449
University of Montreal benoit.perron@umontreal.ca

René Garcia
Department of Economics +1 (514)-343-6111#28490
University of Montreal rene.garcia@umontreal.ca

SUMMARY OF THE THESIS

Jackknife LIML estimator with many weak instruments using regularization techniques. (Job market paper).

Instrumental variables (IV) regression is largely used in economics research to calculate treatment effects for endogenous regressors. However, IV estimates of structural effects are often imprecise in practice. One strategy is to increase the precision of IV by including many instruments. However, in finite samples, the inclusion of an excessive number of moments may be harmful. To address this issue, we use regularization techniques as in Carrasco (2012) and Carrasco and Doukali (2016). We show that the regularized version of the jackknife LIML is consistent and asymptotically normally distributed. Simulation study shows that the leading regularized estimator (LF of jackknife LIML) works very well even in the case of relatively weak instruments. A macroeconomic application illustrates the performance of our estimators: elasticity of intertemporal substitution.

Regularized Jackknife IV with many instruments, with Marine Carrasco. Submitted to ‘‘Annals of Economics and Statistics’’.

The use of many moment conditions improves the asymptotic efficiency of the instrumental variables estimators. However, in finite samples, the inclusion of an excessive number of moments increases the bias. To solve this problem, we propose regularized versions of the jackknife instrumental variable estimator (JIVE) based on three different regularizations: Tikhonov, Landweber Fridman, and principal components. Our estimators are consistent and asymptotically normally distributed under some standard assumptions. The higher order expansion of the mean square error (MSE) shows the dominance of regularized JIVE over regularized two-staged least squares estimators. We devise a data driven selection of the regularization parameter based on the approximate MSE. A Monte Carlo study shows that the regularized JIVE works well and performs better in many situations than the regularized 2SLS estimator. An empirical application illustrates the relevance of our estimators: the return to schooling.

Testing overidentifying restrictions with many instruments and heteroskedasticity using regularized jackknife IV estimator, with Marine Carrasco.

It is well known that when the number of the instruments grows, the test of overidentifying restrictions performs poorly. This paper studies the asymptotic theory of the test of overidentifying restrictions in a linear model in a setting where the number of instruments increases. The proposed test is robust to heteroskedasticity. Simulations results demonstrate that our modified J statistic associated with the test have very good properties in terms of accuracy. Our Monte Carlo study shows that the proposed J test using regularized jackknife estimator (the Tikhonov JIVE) performs better than the benchmark Sargan test. Two empirical applications illustrate the dominance of our proposed J test: one regarding the New-Keynesian Phillips Curve, and the other regarding the elasticity of intertemporal substitution.