

["Solving Dynamic General Equilibrium Models Using a Second-Order Approximation to the Policy Function,"](#) by [Stephanie Schmitt-Grohe](#) and [Martin Uribe](#) (JEDC, vol. 28, January 2004, pp. 755-775)

Matlab code

First-order approximation

[gx_hx.m](#)

Second-order approximation

[gxx_hxx.m](#)

[gss_hss.m](#)

Obtaining the derivatives of f

(requires Matlab's Symbolic Math Toolbox)

[anal_deriv.m](#)

[num_eval.m](#)

Model Simulation:

[simu_2nd.m](#)

Writing the Output of `anal_deriv.m` to an M-file: This program saves significant amount of computational time in applications in which the output of `anal_deriv.m` has to be evaluated repeatedly.

[anal_deriv_print2f.m](#) by [Andrea Pescatori](#)

Computing Unconditional Second Moments: [mom.m](#)

Computing Unconditional Means: [unconditional_mean.m](#)

Implementing [Iskrev's Identifiability Test](#)

Example 1: The neoclassical growth model

(requires Matlab's Symbolic Math Toolbox)

[neoclassical_model.m](#)

[neoclassical_model_ss.m](#)

[neoclassical_model_run.m](#)

Example 2: A Two-Country Model With Complete Asset Markets (J. Kim and S. Kim, *JIE*, 2003)

(requires Matlab's Symbolic Math Toolbox)

[kim_model.m](#)

[kim_ss.m](#)

[kim_run.m](#)

Example 3: An Asset Pricing Model (Burnside, *JEDC* 1998; and Collard and Juillard, *JEDC* 2001)

(requires Matlab's Symbolic Math Toolbox)

[asset_model.m](#)

[asset_ss.m](#)

[asset_run.m](#)