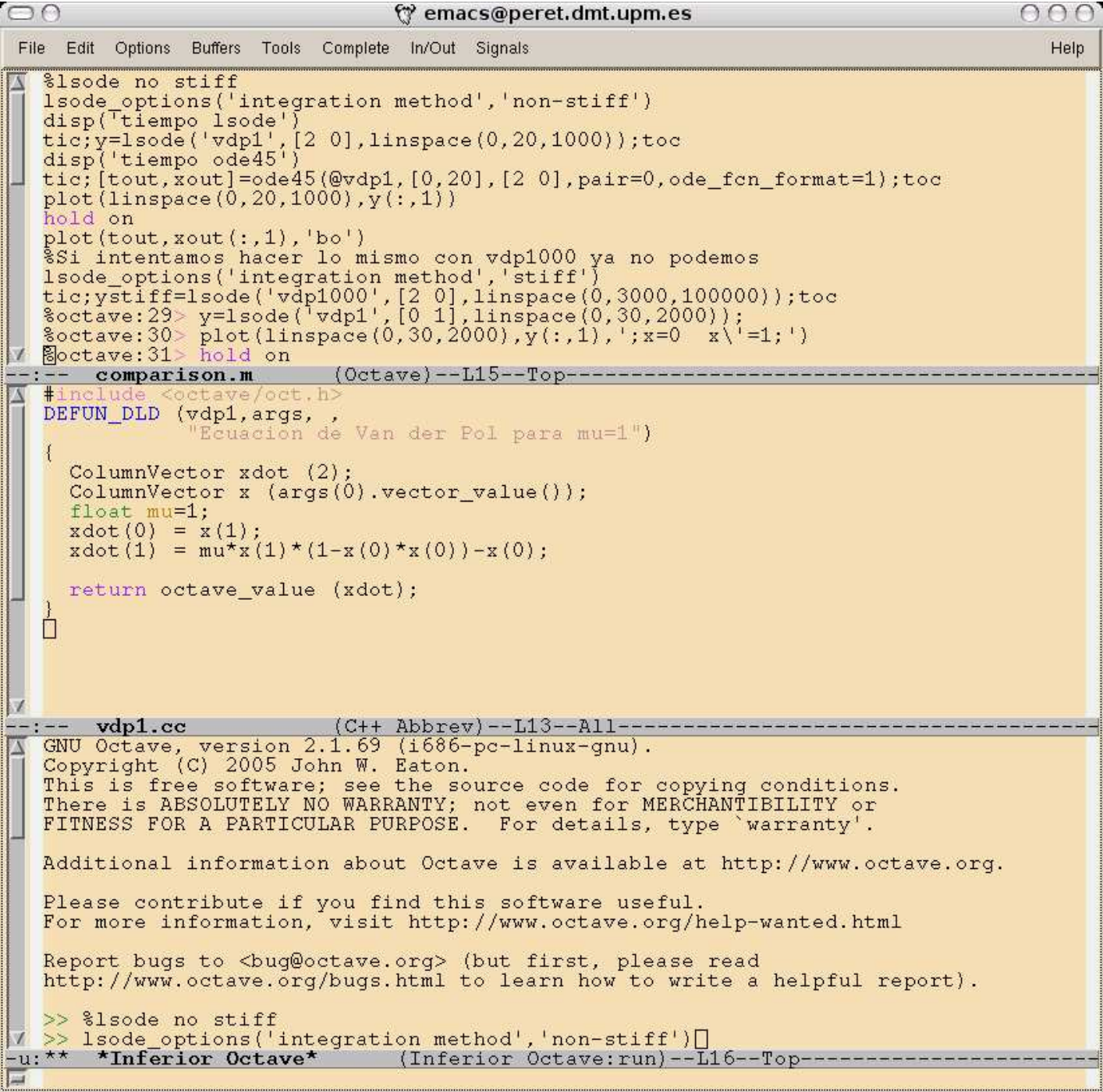
emacs@peret.dmt.upm.es
File Edit Options Buffers Tools Complete In/Out Signals Help
%lsode no stiff
lsode_options('integration method','non-stiff')
disp('tiempo lsode')
tic;y=lsode('vdp1',[2 0],linspace(0,20,1000));toc
disp('tiempo ode45')
tic;[tout,xout]=ode45(@vdp1,[0,20],[2 0],pair=0,ode_fcn_format=1);toc
plot(linspace(0,20,1000),y(:,1))
hold on
plot(tout,xout(:,1),'bo')
%Si intentamos hacer lo mismo con vdp1000 ya no podemos
lsode_options('integration method','stiff')
tic;ystiff=lsode('vdp1000',[2 0],linspace(0,3000,100000));toc
%octave:29> y=lsode('vdp1',[0 1],linspace(0,30,2000));
%octave:30> plot(linspace(0,30,2000),y(:,1),';x=0 x\'=1;')
%octave:31> hold on
--:-- comparison.m (Octave)--L15--Top
#include <octave/oct.h>
DEFUN_DLD (vdp1,args, ,
"Ecuacion de Van der Pol para mu=1")
{
ColumnVector xdot (2);
ColumnVector x (args(0).vector_value());
float mu=1;
xdot(0) = x(1);
xdot(1) = mu*x(1)*(1-x(0)*x(0))-x(0);
return octave_value (xdot);
}
--:-- vdp1.cc (C++ Abbrev)--L13--All
GNU Octave, version 2.1.69 (i686-pc-linux-gnu).
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Please contribute if you find this software useful.
For more information, visit http://www.octave.org/help-wanted.html
Report bugs to <bug@octave.org> (but first, please read
http://www.octave.org/bugs.html to learn how to write a helpful report).
>> %lsode no stiff
>> lsode_options('integration method','non-stiff')
-u:** *Inferior Octave* (Inferior Octave:run)--L16--Top