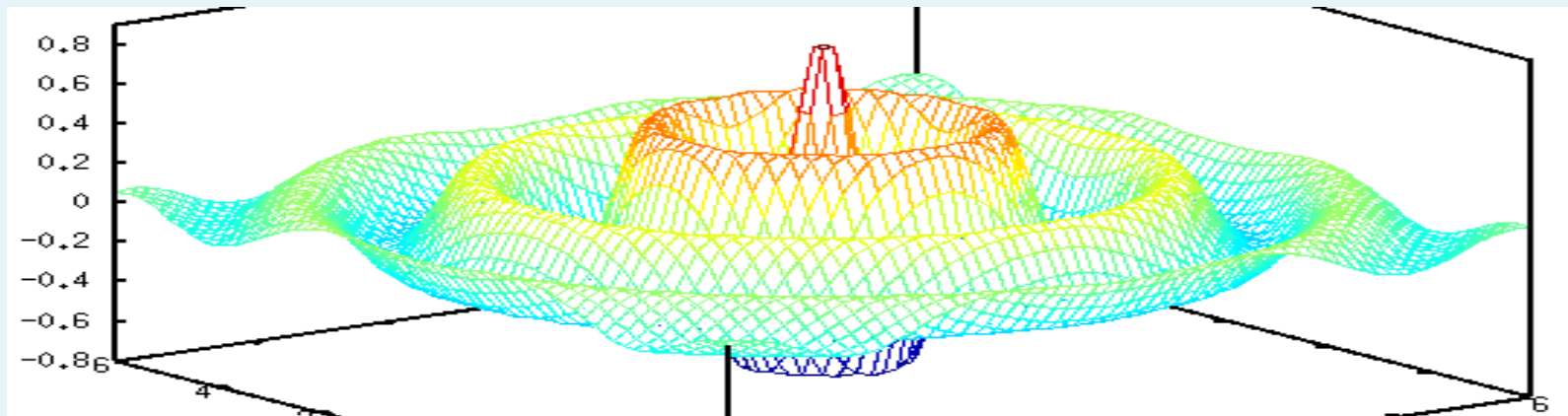


5ο Συνέδριο ΕΛΛΑΚ Εργαστήριο Octave

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Επεξεργασία εικόνας με την Οκτάβα

Η Οκτάβα προσφέρεται για επεξεργασία εικόνων γιατί οι εικόνες παριστάνονται ως δισδιάστατοι (α/μ) ή τρισδιάστατοι πίνακες (έγχρωμες).

Το “;” στο τέλος της εντολής αποκρύπτει τους ενδιάμεσους αριθμητικούς υπολογισμούς.



Περιβάλλον QtOctave

The screenshot displays the QtOctave environment with the following components:

- Octave Terminal:** Contains the following code:

```
ylabel('Position (meters)');  
title('Figure 1 - Position of');  
  
figure (2);  
plot(t, x1 - z_measured, t, x2 - z_estimated);  
xlabel('Time (sec)');  
ylabel('Position Error (meters)');  
title('Figure 2 - Position Measured, and Estimated');  
  
figure(3);  
plot(t, x2, t, x2_est); grid;  
xlabel('Time (sec)');  
ylabel('Velocity (meters/sec)');  
title('Figure 3 - Velocity (Estimated and Measured)');  
  
figure(4);  
plot(t, x2-x2_est); grid;  
xlabel('Time (sec)');  
ylabel('Velocity Error (meters/sec)');  
title('Figure 4 - Velocity Error (Estimated and Measured)');  
  
octave:40+>
```
- File list:** Shows a file named `kalman_filter.m`.
- Commands' List:** Shows the current directory as `/home/antony/octave1`.
- File list (right):** Shows the content of `kalman_filter.m`, including:

```
53 z_measured = z_measured_pos;  
54 x2 = [x2; x2_dot];  
55 x2_est = [x2_est; x2_est_dot];  
56  
57 end  
58  
59 % Plotting of  
60 close all;  
61 t = 0:dt:durat;  
62  
63 figure (1);  
64 plot(t, x1, t, z_measured);  
65 xlabel('Time (sec)');  
66 ylabel('Position (meters)');  
67 title('Figure 1 - Position Measured, and Estimated');  
68  
69 figure (2);  
70 plot(t, x1 - z_measured, t, x2 - z_estimated);  
71 xlabel('Time (sec)');  
72 ylabel('Position Error (meters)');  
73 title('Figure 2 - Position Measured, and Estimated');  
74  
75 figure(3);  
76 plot(t, x2, t, x2_est); grid;  
77 xlabel('Time (sec)');  
78 ylabel('Velocity (meters/sec)');  
79 title('Figure 3 - Velocity (Estimated and Measured)');  
80  
81 figure(4);  
82 plot(t, x2-x2_est); grid;  
83 xlabel('Time (sec)');  
84 ylabel('Velocity Error (meters/sec)');  
85 title('Figure 4 - Velocity Error (Estimated and Measured)');  
86  
87  
Line: 87 Col: 1
```

http://octave.sourceforge.net/packages.php



Octave-Forge - Extra packages for GNU Octave

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Packages

The following packages are currently available in the repository. If you don't know how to install the packages please read the relevant part of the [FAQ](#).

These packages are meant for versions of Octave later than version 2.9.12. For earlier versions of Octave, please use the older [monolithic releases](#) of Octave-Forge.

▾ actuarial	» details download
▾ ad	» details download
▾ audio	» details download
▾ benchmark	» details download
▾ bim	» details download
▾ bioinfo	» details download
▾ bugfix-3.0.6	» details download
▾ civil-engineering	» details download
▾ combinatorics	» details download
▾ communications	» details download
▾ control	» details download
▾ data-smoothing	» details download



Navigation

Operators and Keywords

Function List:

- » Octave core
- » by package
- » alphabetical

C++ API

image

The Octave-forge Image package provides functions for processing images. The package also provides functions for feature extraction, image statistics, spatial and geometric transformations, morphological operations, linear filtering, and much more.

Select category:

Display

image

Display a matrix as a color image.

imagesc

Display a scaled version of the matrix A as a color image.

imshow

Display the image IM, where IM can be a 2-dimensional (gray-scale image) or a 3-dimensional (RGB image) matrix.

rgbplot

Plot a given color map.

Read/write

imread

Read images from various file formats.

imwrite

Write images in various file formats.

Εγκατάσταση octave-image toolbox μέσω Synaptic

The screenshot shows the Synaptic Package Manager window. The menu bar includes File, Edit, Package, Settings, and Help. The toolbar contains icons for Reload, Mark All Upgrades, Apply, Properties, and a Quick search box containing 'octave-image'. The main window is divided into a left sidebar and a main content area. The sidebar has a list of categories with 'All' selected, and buttons for Sections, Status, Origin, Custom Filters, and Search Results. The main content area displays a table of search results for 'octave-image'.

S	Package	Installed Version	Latest V
<input checked="" type="checkbox"/>	octave-image	1.0.8-3	1.0.8-3
<input type="checkbox"/>	octave-pfstools		1.8.1-1u
<input type="checkbox"/>	h5utils		1.12-1

No package is selected.

3 packages listed, 1797 installed, 0 broken. 0 to install/upgrade, 0 to remove

Παράδειγμα επεξ. εικόνας

- Ανοίξτε το αρχείο `IMAGE_proc2.m` και εκτελέστε τις εντολές μια προς μια ή καθ' ομάδες.

Τέλος

Ερωτήσεις ;



15.5.2010

