Matlab Check Imaginary Numbers

back to Fan's Reusable Matlab Repository or Dynamic Asset Repository.

Basic Examples

```
rng(123);
% Imaginary array
ar_{img} = rand([1,7]) + 1i*rand([1,7]);
% Regular Array
ar_real = rand([1,10]);
% Combine arrays
ar_full = [ar_real ar_img];
ar_full = ar_full(randperm(length(ar_full)));
disp(ar_full);
 Columns 1 through 7
  0.6344 + 0.0000i
                0.1755 + 0.0000i
                               0.5316 + 0.0000i
                                              0.1825 + 0.0000i
 Columns 8 through 14
  0.8494 + 0.0000i
                                              0.6110 + 0.0000i
                                                             0.4231 + 0.4386i
                                                                            0.9808 + 0.0597i
 Columns 15 through 17
  0.3980 + 0.0000i 0.5513 + 0.3432i
                               0.7195 + 0.7290i
% real index
disp(~imag(ar_full));
                1
                    0
                        0
                                       0
                                             1
                                                0
                                                    0
     1 1 0 1
                           1
                                          1
% Get Real and not real Components
disp(ar_full(imag(ar_full) == 0));
   0.6344
          0.1755
                  0.5316
                          0.7380
                                  0.1825
                                          0.7245
                                                 0.8494
                                                         0.6110
                                                                 0.5318
                                                                         0.3980
disp(ar_full(imag(ar_full) ~= 0));
  0.4231 + 0.4386i
                                                             0.9808 + 0.0597i
                                                                            0.5513 + 0.3432i
```