Bivariate sparse regularization (BISR)

This folder contains MATLAB software to accompany the paper
'Enhanced Sparsity by Non-Separable Regularization',
I. W. Selesnick and I. Bayram,
IEEE Transactions on Signal Processing, 2016.

List of programs

```
 plot_functions_1D.m   Make plots as shown in the paper
 plot_penalties_1D.m
 plot_penalties_2D.m
 plot_ellipses.m

 penalty.m          Univariate penalty function
 psi2.m             Bivariate penalty function
 S_grad.m           Gradient of concave function S
 S_hessian.m        Hessian of concave function S
 pd2ellipse.m       Ellipse corresponding to a
                        positive definite matrix

 deconv_BISR.m      Sparse deconvolution using BISR
 deconv_BISR_v2.m   Self-contained implementation
 deconv_L1.m        Sparse deconvolution using L1 norm

 deconv_demo.m      Demo of deconvolution (Examples 1 and 2)
 sparse_signal.m    Generate sparse signal for demo
 deconv_demo_impulse_response.m  Impulse responses for demo
```

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