

Readme.pdf

Files to accompany Shikhaliev, Potter, Chi, "Estimation of a Low-Rank Structured Covariance", IEEE SP Letters, 2019.

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|-------------------------------|---------------------------------------|
| 1. Readme.pdf | This file |
| 2. MakeFigure1a.m | Script to create Figure 1a |
| 3. MakeFigure1b.m | Script to create Figure 1b |
| 4. A_func_noise_floor.m | Utility routine |
| 5. logdet.m | Utility routine (open source, D. Lin) |
| 6. CovarianceEstimatorSuite.m | Function |

To reproduce Figures 1a and 1b, simply execute the respective script, with the two utility files in the directory (or path).

```
>> MakeFigure1a
```

```
>> MakeFigure1b
```

More generally, the function CovarianceEstimatorSuite.m computes 15 ML and MAP estimators.

```
[invR,V,Lambda,R]=CovarianceEstimatorSuite(X,method,param,verbose)
```

Use the help command in Matlab to view documentation and an example:

```
>> help CovarianceEstimatorSuite
```