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Signals & Systems, Dept. of Electrical Engineering
Uppsala University, March 2020

----- COMBO-MF Initiated✓

Select mode for COMBO-MF:

1. Intra-Plate Analysis
2. Inter-Plate Analysis

1

---- Intra-Plate Analysis ----

Video Collection path: F:\CUSP9A\Mendeley\1-4\9095

COMBO-Pick Specification path: F:\CUSP9A\Mendeley\M059K_190429_9095.xlsx

Enter hours after drug addition for the 1st recorded time point/frame:

0

Select mode for Intra-Plate Analysis:

1. Run a particular prototype
2. Merge results from several prototypes

1

Prototype path: F:\CUSP9A\Mendeley\prototypes\s1.mat

Backup exists...

Mode for COMBO-MF: Analysis...

Image Quality Control already performed...

Detection threshold for matched filter will be calculated...

Enter the number of independent repeats for the cross validation:

2

Enter the number of hold out folds for the cross validation:

4

Blank wells not included in the video collection folder...

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Calculation of background median intensity started...
Calculation of background median intensity completed...

Threshold detection for matched filter started...

----- 2-times Repeated 4-fold Cross Validation for Filter Tuning✓

----- Repeat 1 of 2, Leaving out fold 1 of 4 -----

Convex interval around initial guess exists...

Interval optimization started...
Interval optimization completed...

Time elapsed for interval optimization: 0.00 (hrs) 0.00 (min) 46.76 (sec)

----- Repeat 1 of 2, Leaving out fold 2 of 4 -----

Convex interval around initial guess exists...

Interval optimization started...
Interval optimization completed...

Time elapsed for interval optimization: 0.00 (hrs) 1.00 (min) 33.05 (sec)

----- Repeat 1 of 2, Leaving out fold 3 of 4 -----

Convex interval around initial guess exists...

Interval optimization started...
Interval optimization completed...

Time elapsed for interval optimization: 0.00 (hrs) 1.00 (min) 10.74 (sec)

----- Repeat 1 of 2, Leaving out fold 4 of 4 -----

Convex interval around initial guess exists...

Interval optimization started...
Interval optimization completed...

Time elapsed for interval optimization: 0.00 (hrs) 1.00 (min) 20.46 (sec)

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----- Repeat 2 of 2, Leaving out fold 1 of 4 -----

Convex interval around initial guess exists...

Interval optimization started...

Interval optimization completed...

Time elapsed for interval optimization: 0.00 (hrs) 1.00 (min) 15.93 (sec)

----- Repeat 2 of 2, Leaving out fold 2 of 4 -----

Left boundary of convex interval around initial guess must be formed...

Function value at left boundary 1118991.029000: 4.333333

Function value at central point 1381559.330000: 3.666667

Left boundary of convex interval around initial guess formed...

Interval optimization started...

Interval optimization completed...

Time elapsed for interval optimization: 0.00 (hrs) 1.00 (min) 31.28 (sec)

----- Repeat 2 of 2, Leaving out fold 3 of 4 -----

Convex interval around initial guess exists...

Interval optimization started...

Interval optimization completed...

Time elapsed for interval optimization: 0.00 (hrs) 1.00 (min) 8.69 (sec)

----- Repeat 2 of 2, Leaving out fold 4 of 4 -----

Convex interval around initial guess exists...

Interval optimization started...

Interval optimization completed...

Time elapsed for interval optimization: 0.00 (hrs) 1.00 (min) 7.84 (sec)

Detection threshold from 2-times repeated 4-fold cross validation: 1495671.013851

Threshold detection for matched filter completed...

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Median test error: 5

Time elapsed for Matched Filter Tuning: 0.00 (hrs) 10.00 (min) 14.13 (sec)

Starting parallel pool (parpool) using the 'local' profile ...
Connected to the parallel pool (number of workers: 4).

Matched filtering started...

Parallel mapreduce execution on the parallel pool:

* MAPREDUCE PROGRESS *

Map	0%	Reduce	0%
Map	1%	Reduce	0%
Map	2%	Reduce	0%
Map	3%	Reduce	0%
Map	4%	Reduce	0%
Map	5%	Reduce	0%
Map	6%	Reduce	0%
Map	7%	Reduce	0%
Map	8%	Reduce	0%
Map	9%	Reduce	0%
Map	10%	Reduce	0%
Map	11%	Reduce	0%
Map	12%	Reduce	0%
Map	13%	Reduce	0%
Map	14%	Reduce	0%
Map	15%	Reduce	0%
Map	16%	Reduce	0%
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Map	29%	Reduce	0%
Map	30%	Reduce	0%
Map	31%	Reduce	0%

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Map	32%	Reduce	0%
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Map	77%	Reduce	0%
Map	78%	Reduce	0%
Map	79%	Reduce	0%
Map	80%	Reduce	0%
Map	81%	Reduce	0%

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Map 82% Reduce 0%
Map 83% Reduce 0%
Map 84% Reduce 0%
Map 85% Reduce 0%
Map 86% Reduce 0%
Map 87% Reduce 0%
Map 88% Reduce 0%
Map 89% Reduce 0%
Map 90% Reduce 0%
Map 91% Reduce 0%
Map 92% Reduce 0%
Map 93% Reduce 0%
Map 94% Reduce 0%
Map 95% Reduce 0%
Map 96% Reduce 0%
Map 97% Reduce 0%
Map 98% Reduce 0%
Map 99% Reduce 0%
Map 100% Reduce 0%
Map 100% Reduce 100%
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Matched filtering completed...

Time elapsed for MapReduce : 0.00 (hrs) 5.00 (min) 17.31 (sec)

Parallel pool using the 'local' profile is shutting down.

Retrieval of apoptotic-like cell counts for untreated wells started...
Retrieval of apoptotic-like cell counts for untreated wells completed...

Retrieval of apoptotic-like cell counts for treated wells started...
Retrieval of apoptotic-like cell counts for treated wells completed...

Generation of time evolving apoptotic-like cell count curves started...
Generation of time evolving apoptotic-like cell count curves completed...

Generation of CSV file with object counts started...
Generation of CSV file with object counts completed...

Time elapsed for COMBO-MF: 0.00 (hrs) 18.00 (min) 3.37 (sec)

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----- COMBO-MF Completed ✓  
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