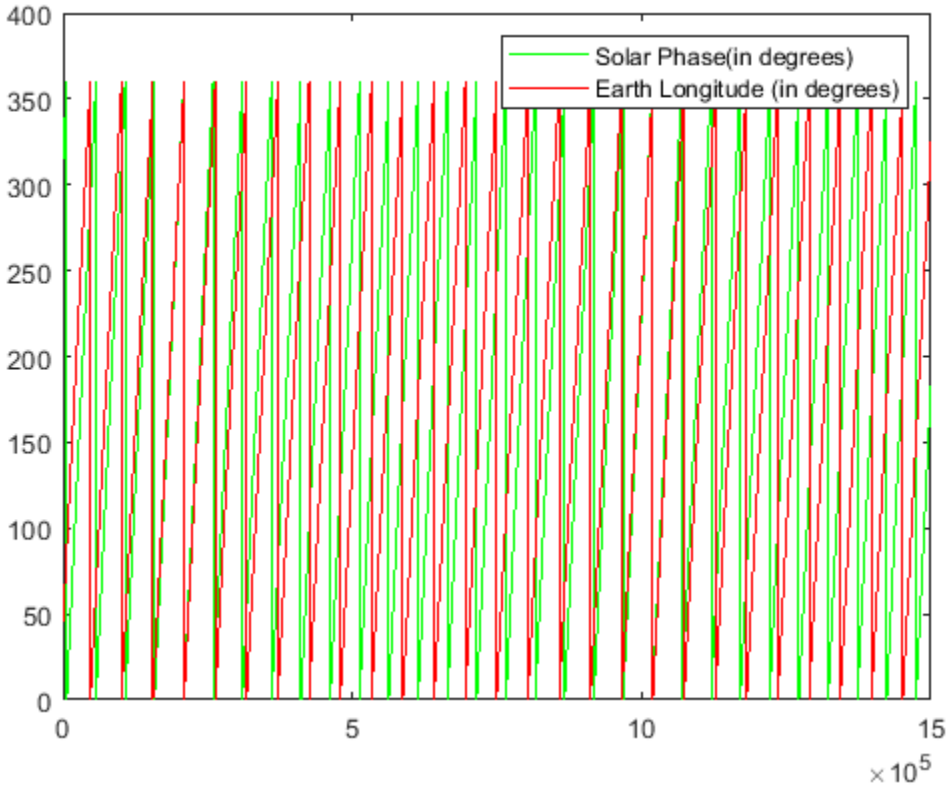
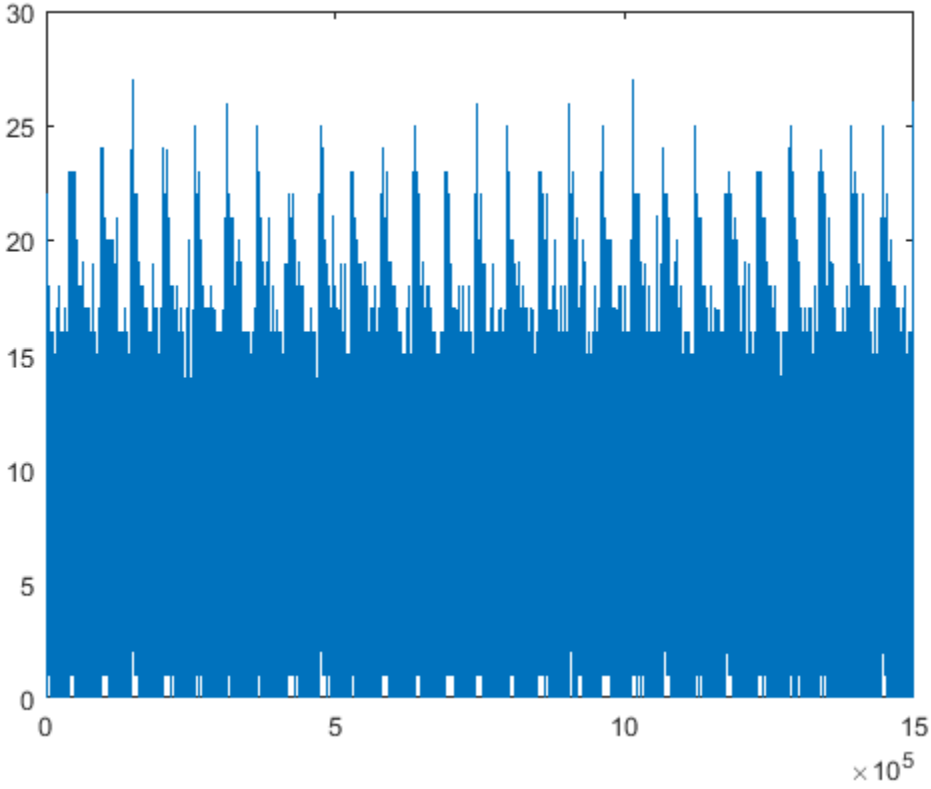
Problem 1

```
HDF5 gammaray_lab4 .h5
Group '/'
    Dataset 'data'
        Size:  25920001x4
        MaxSize:  25920001x4
        Datatype:   H5T_IEEE_F64LE (double)
        ChunkSize:  []
        Filters:  none
        FillValue:  0.000000
gammarayData = 25920001×4
10^8 ×
    9.4068    0.0000    0.0000    0.0000
    9.4068    0.0000    0.0000    0.0000
    9.4068    0.0000    0.0000    0.0000
    9.4068    0.0000    0.0000    0.0000
    9.4068    0.0000    0.0000    0.0000
    9.4068    0.0000    0.0000    0.0000
    9.4068    0.0000    0.0000    0.0000
    9.4068    0.0000    0.0000    0.0000
    9.4068    0.0000    0.0000    0.0000
    9.4068    0.0000    0.0000    0.0000
ans = 1×4
   940680016         315          45          10
```

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25
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15
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0
0
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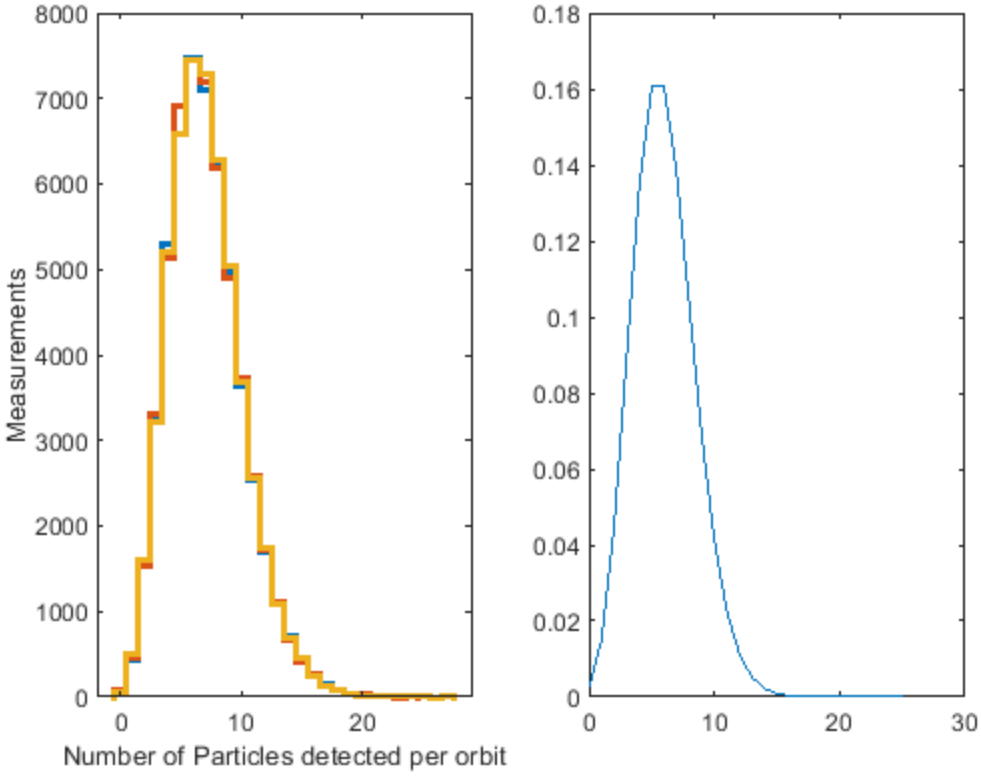
×10^5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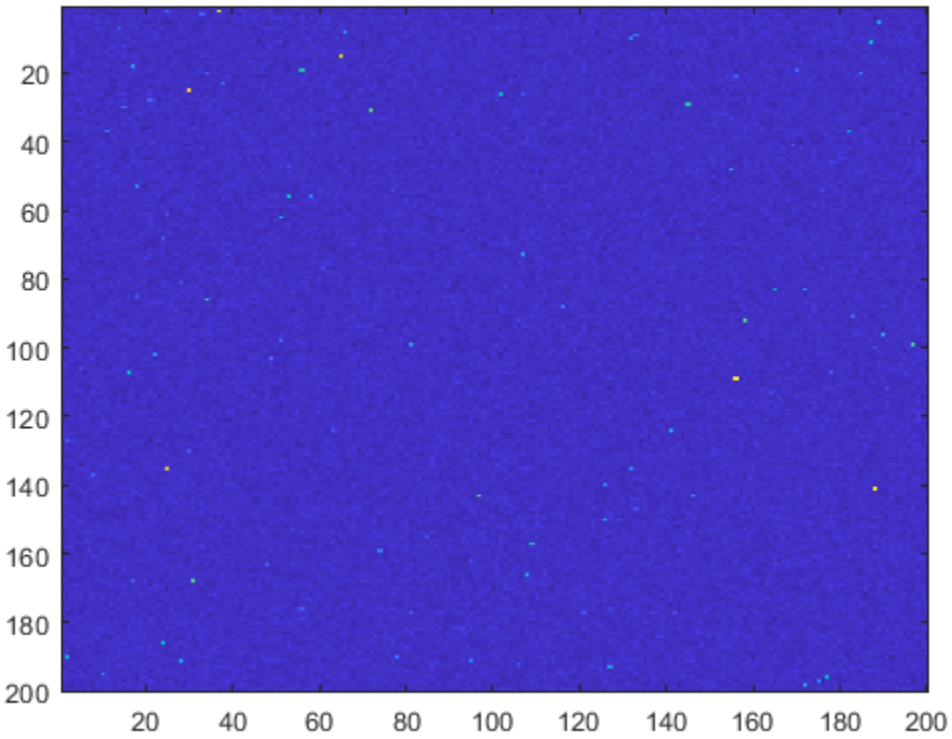
7000
6000
5000
4000
3000
2000
1000
0
Measurements
0
10
20
Number of Particles detected per orbit
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
0
10
20
30

Problem 2.

```
HDF5 images .h5
Group '/'
    Dataset 'image1'
        Size:  200x200
        MaxSize:  200x200
        Datatype:   H5T_IEEE_F64LE (double)
        ChunkSize:  []
        Filters:  none
        FillValue:  0.000000
    Dataset 'imagestack'
        Size:  10x200x200
        MaxSize:  10x200x200
        Datatype:   H5T_IEEE_F64LE (double)
        ChunkSize:  []
        Filters:  none
        FillValue:  0.000000
image1 = 200×200
   -1.2471    0.0973    0.3390    0.2956    1.9137    0.0763    0.0399   -
0.2558   -0.2229   -0.6511   -0.0140    0.7083   -0.0971   -0.3048   -0.4756
0.2987   -0.3554   -0.1238   -0.4046    0.0768   -0.2543    0.0392   -0.5456
-0.2663    0.0707   -0.1318   -0.1836   -0.1499   -0.2999    1.3753   -0.1948
-0.3696    0.4855   -0.6753   -0.6463    0.8828   -0.1690   -0.4287   -0.0287
0.4352    0.2435    1.1049   -0.3340    0.5125    0.9015    0.9251   -0.8317
0.4504    1.1618   -0.8016
   -0.1862    0.2093   -0.2121    0.1595    0.3908    0.3444   -0.1808
0.1337   -0.6025   -0.7623   -1.2264    0.3423   -0.0047    0.0077    1.0298
-0.2821    0.8016    0.1661    0.1519    0.2972    0.7114   -1.2684    0.4984
1.4354    9.7868    0.8268    0.7253   -0.0198   -0.6433    0.2123   -0.0471
0.3807   -0.1384    0.4877   -0.4924   -0.7346   46.8432    0.1063    0.1277
-0.1530    0.6081    0.8553    1.0913    0.4684   -0.8077   -0.3758    0.3301
0.3406    0.0395   -1.1181
    0.4484    0.0551   -0.5322   -0.7497   -0.4394    0.6028    0.6394   -
1.9242    0.4055   -0.3479   -0.6302   -1.1146   -0.1962   -1.1891    0.5349
0.1205   -0.2946   -0.4899   -0.5106    0.4713    0.6504    0.2583   -0.3420
0.2244    0.3098    0.6639   -0.0208    0.1377    0.4702   -0.3740    0.2723
-0.5163    6.5115    0.5660   -1.0731    0.3330    0.1680    0.4250   -0.2085
0.4426   -0.4367   -1.1365    0.9658   -0.0889    0.1585    0.4823   -0.3324
0.7099    0.2616   -0.5295
   -0.2476    0.6884   -0.3164    0.8324    0.9024    0.5792    0.8780
0.4374    0.6270   -0.1005    0.4189    0.0475   -0.3894    0.9184   -0.5555
0.0272    0.1392   -0.4268    0.4529   -0.3950    0.4390   -0.6647    0.3693
-0.3095   -0.5256    0.1799    0.2897   -0.9380    0.2220   -0.1559    0.3947
0.2775   -0.0178   -0.2244   -0.0722    0.5133    0.6134    0.5799   -0.7677
0.1673    0.8466    0.1528    0.4197    0.3182    0.8617   -0.0812    0.7270
-0.7416    1.0105    1.5183
   -0.0902    0.3111   -0.1253    0.5771   -0.3506    0.6772   -0.5183   -
0.4016    0.8209   -0.6274    1.4104   -0.3604   -0.6754    0.0392   -0.1908
0.2988    0.4657    0.1456    0.5854   -1.1048   -1.0916   -1.5241    0.3636
-1.0983   -1.7638   -1.7647   -0.2421    0.3035   -0.5266   -0.3792    0.0161
-0.4476   -0.8170    0.0762    0.1885   -0.0503   -0.7787   -0.3225   -0.8801
0.2715    0.4851    0.1045    0.0057   -0.0127    0.2603   -0.2416    0.2738
-0.9656   -0.1178   -0.2288
    0.0799    0.7405   -0.7734    0.5498    0.5956    0.5589    1.2659   -
0.6235   -0.5446   -0.6363   -0.0061   -0.1622   -0.4056   -0.0057   -0.2395
0.8783    0.0731   -0.4475    0.2906    0.0239    0.3466    0.8000    0.2302
```

-0.5857   -0.1884   0.0287   -0.4258   0.1834   -0.8614   -0.4631   -0.0086
-1.5182   -0.3305   0.1750   0.7504   -0.4295   0.0758   0.5301   0.6199
-1.2248   -0.4687   0.4805   -0.4497   0.4994   -0.2266   0.6136   -0.4362
-0.7715   -0.5141   0.2140
    0.1922   0.0434   0.6634   -0.6231   -0.1846   -0.2326   -0.0393
0.2686   0.7687   0.4233   -0.0096   0.1928   -0.4970   4.5762   -0.3423
0.2951   0.2794   1.5323   -0.9140   0.1740   0.0877   -0.9151   0.6917
1.5122   -0.7741   -0.2267   -0.7080   1.0087   0.2825   -0.0445   -0.5336
-0.9362   -0.2197   0.6303   0.3341   -0.2082   -0.4018   -0.1620   -0.0002
0.1695   -0.1037   -1.0675   0.1209   -0.4664   -0.8571   -0.4291   0.7460
1.0979   0.7888   0.5096
   -0.4242   -0.2099   0.8631   -0.1360   0.1346   0.0751   -0.0533   -
0.2798   0.5314   0.0282   -0.9361   0.2199   0.3341   0.1229   0.0656
-0.0965   -0.9140   0.0608   -0.6662   0.0741   0.6716   0.8817   -0.3023
-0.8544   -0.5465   -0.3368   0.6306   0.3270   0.2846   -0.2647   -0.0410
-0.4530   -0.5057   0.8096   0.2624   -0.6819   0.4611   -0.8229   0.3495
0.1270   0.6450   -0.6334   -0.1392   0.0641   -0.4554   0.7625   -1.3282
0.1676   -0.3836   -0.5120
   -0.4439   0.6336   -0.6655   -0.3715   0.8120   0.1587   -0.3442   -
0.1378   -0.1211   0.2533   0.3730   -0.3592   -0.3064   -0.0768   0.5851
0.1880   0.1921   0.8405   0.8585   -0.3030   0.5745   0.6001   0.4512
-0.0601   0.9302   0.2435   -0.6241   -0.4324   0.2893   -0.3138   -0.5603
0.2279   -0.3779   0.9596   1.1004   0.7330   0.0853   0.1172   -0.9503
-0.5754   -0.6358   0.3927   -0.8233   0.1609   0.6777   -0.4656   0.2378
0.1546   -0.2516   -0.7546
    0.2319   0.9728   -0.5260   -0.2445   0.0689   0.5585   -0.2152
0.0923   -0.3030   0.0400   -1.3775   0.3232   0.5953   0.3503   0.1484
0.9375   -1.1293   -0.3232   -0.2984   0.2727   -0.2962   0.7725   0.1007
-0.5446   0.5648   -0.0804   -0.0078   -1.0353   -0.1982   0.5392   -0.2923
-0.5205   0.1021   0.0914   -0.0010   -0.5705   -0.3044   0.4376   0.1096
-0.0739   0.0281   -0.3868   0.7643   -0.3801   0.6359   -1.1244   0.0202
-0.4369   -0.0758   -0.3479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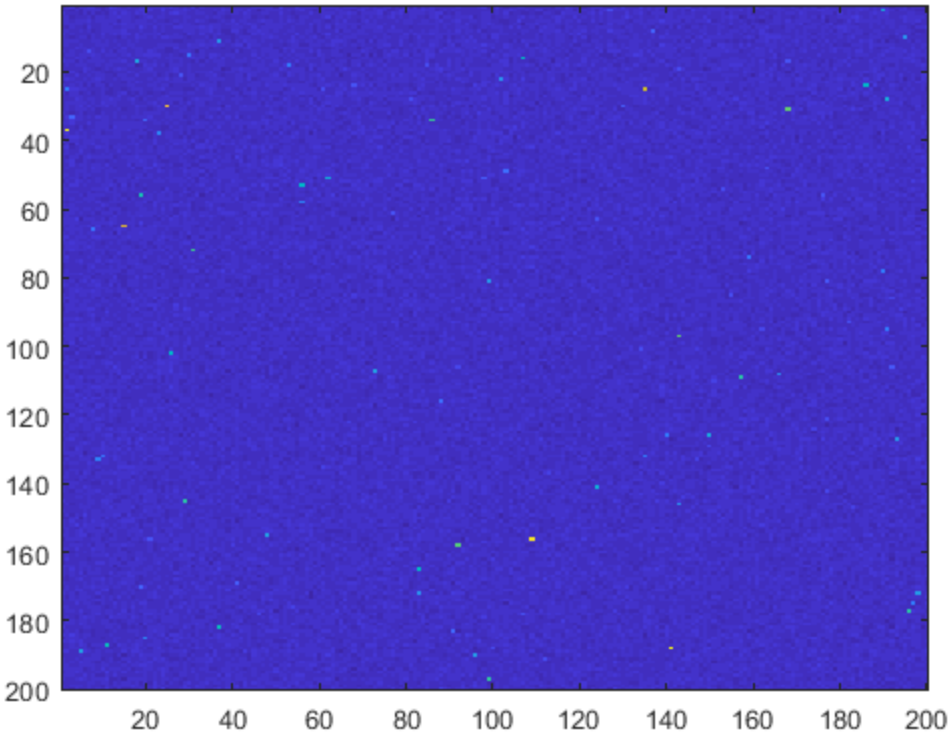
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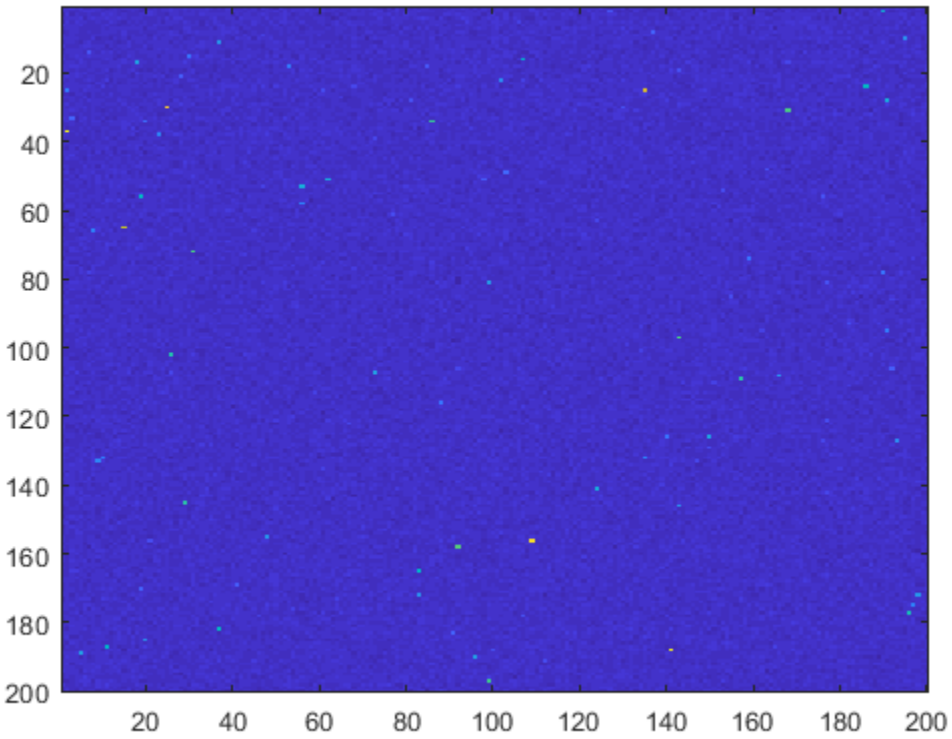
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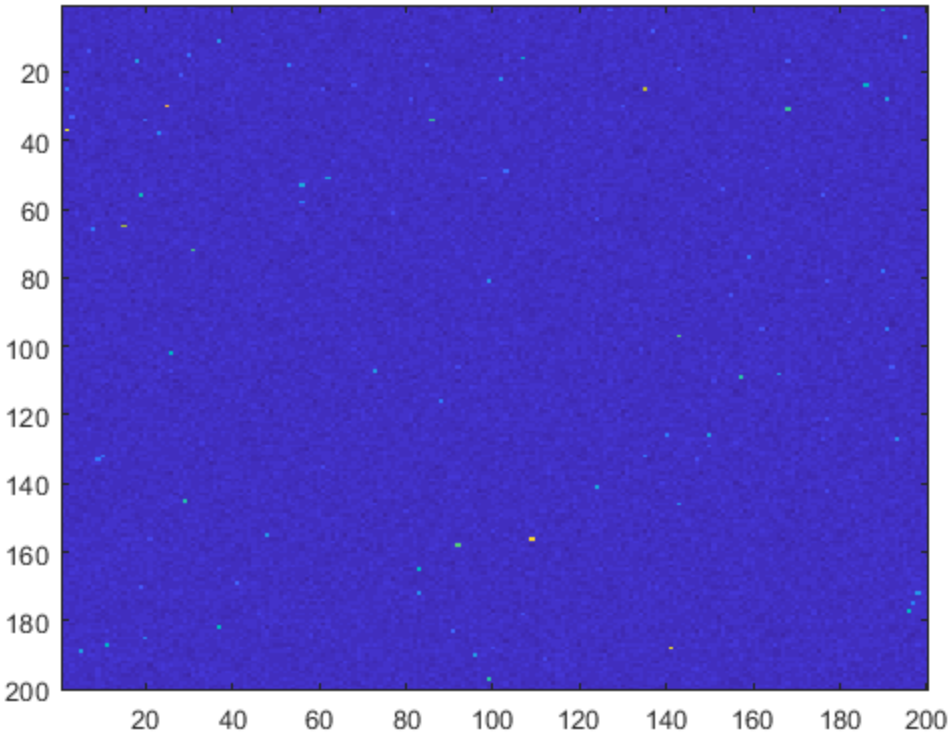
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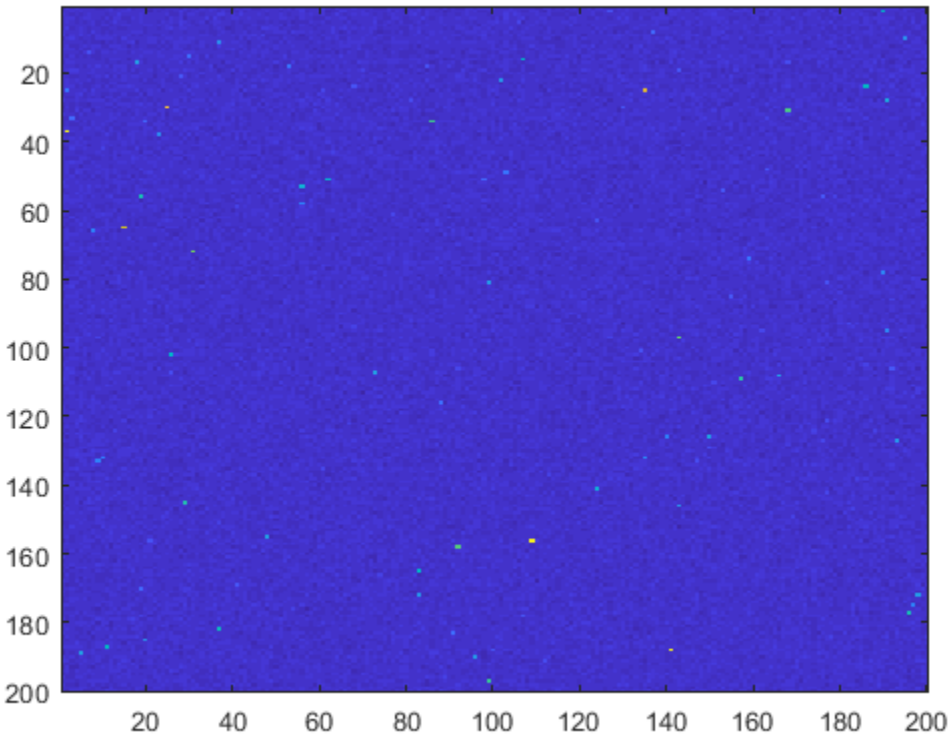
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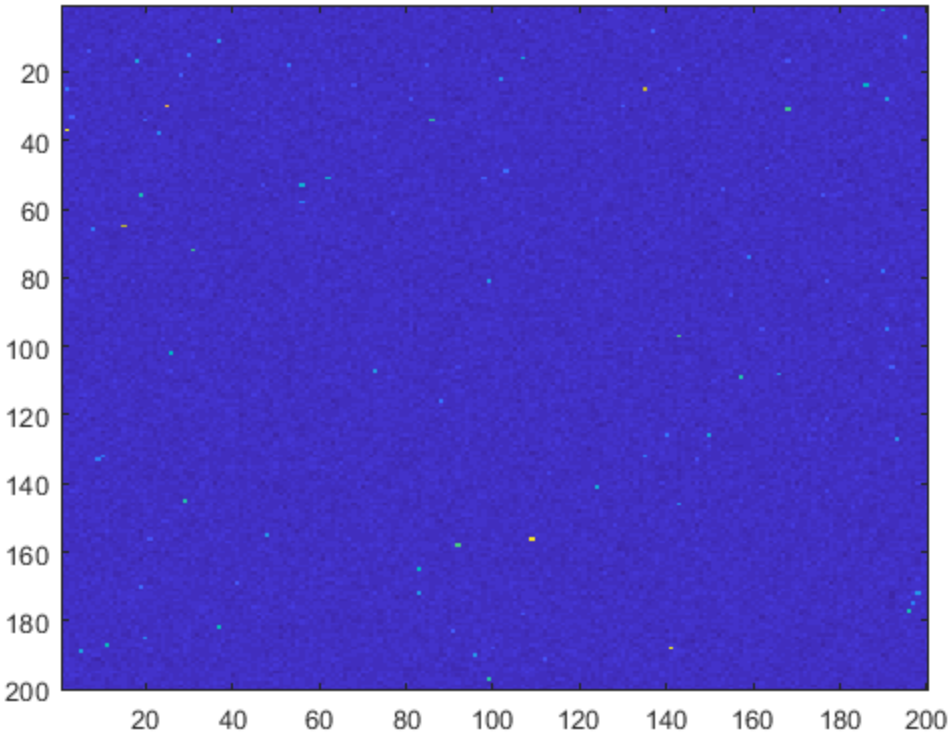
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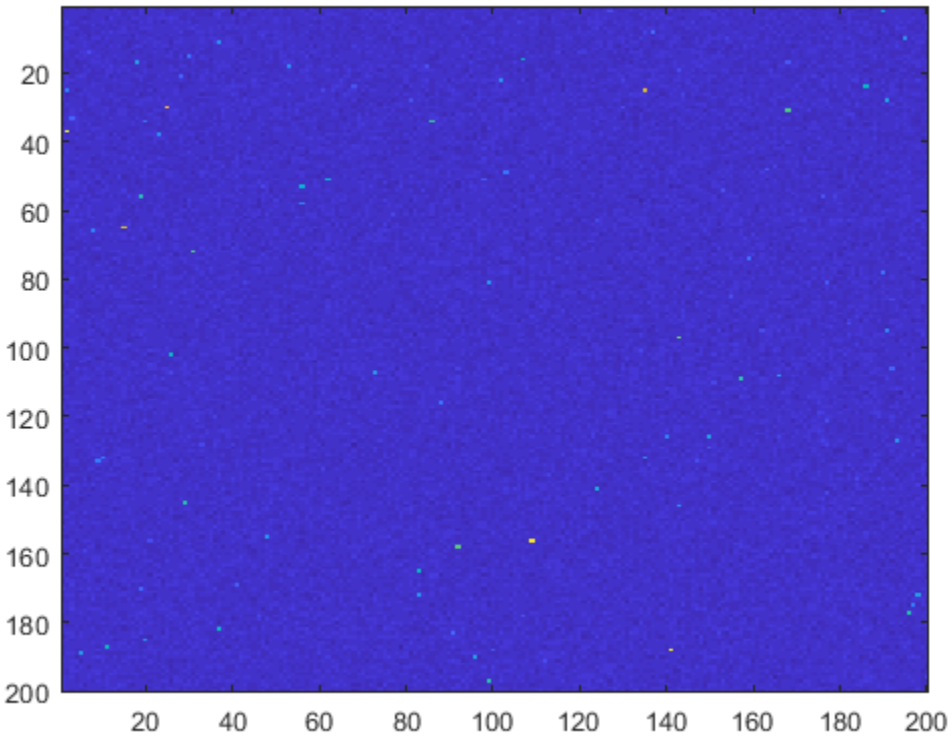
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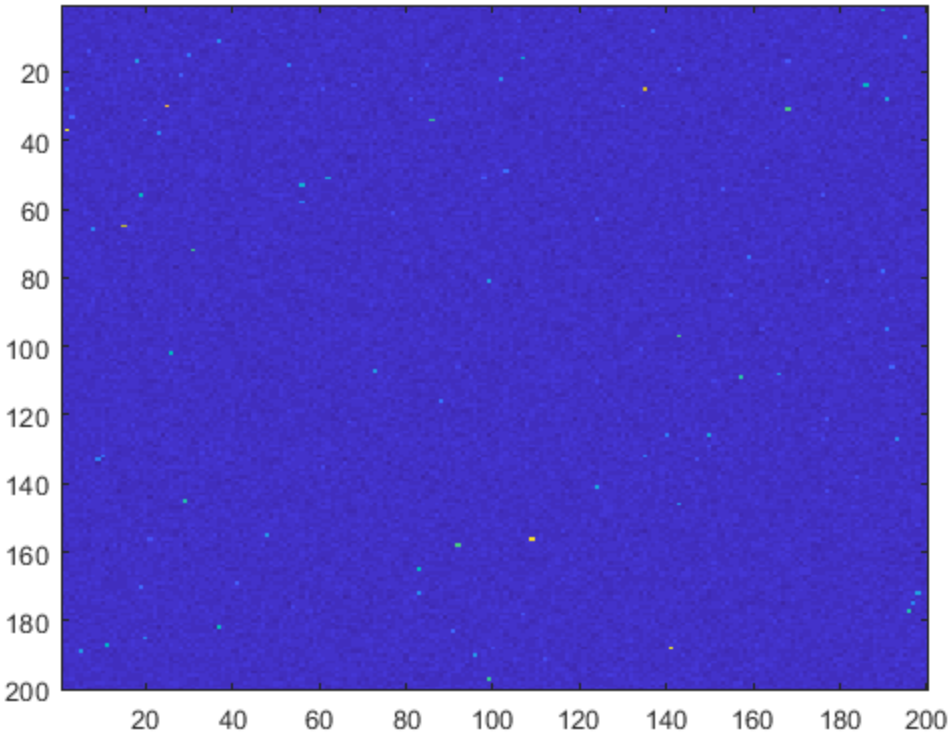
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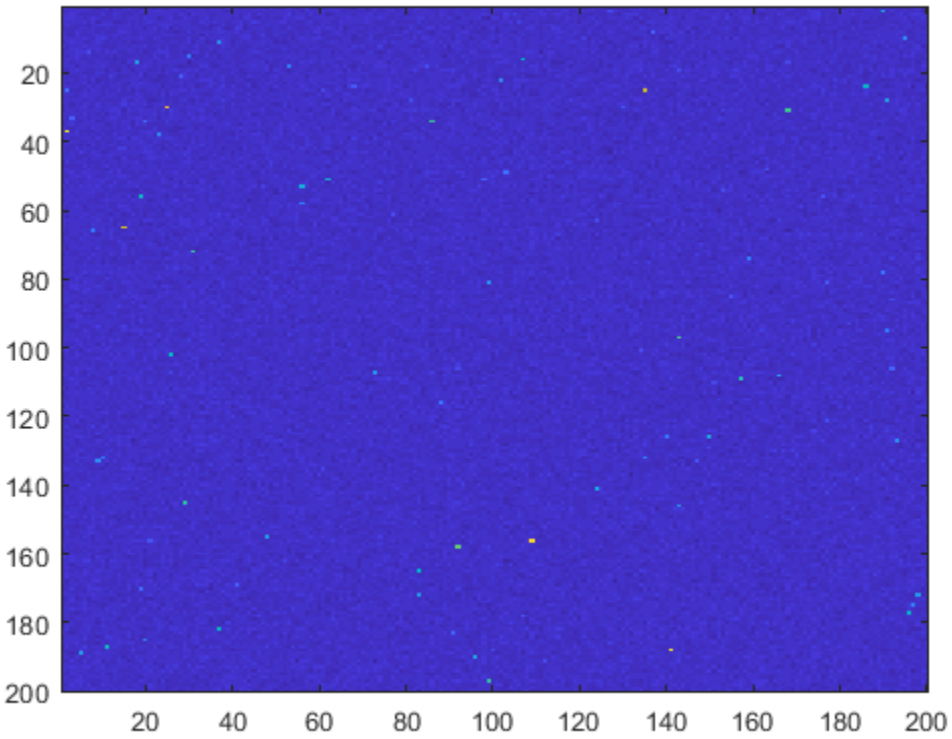
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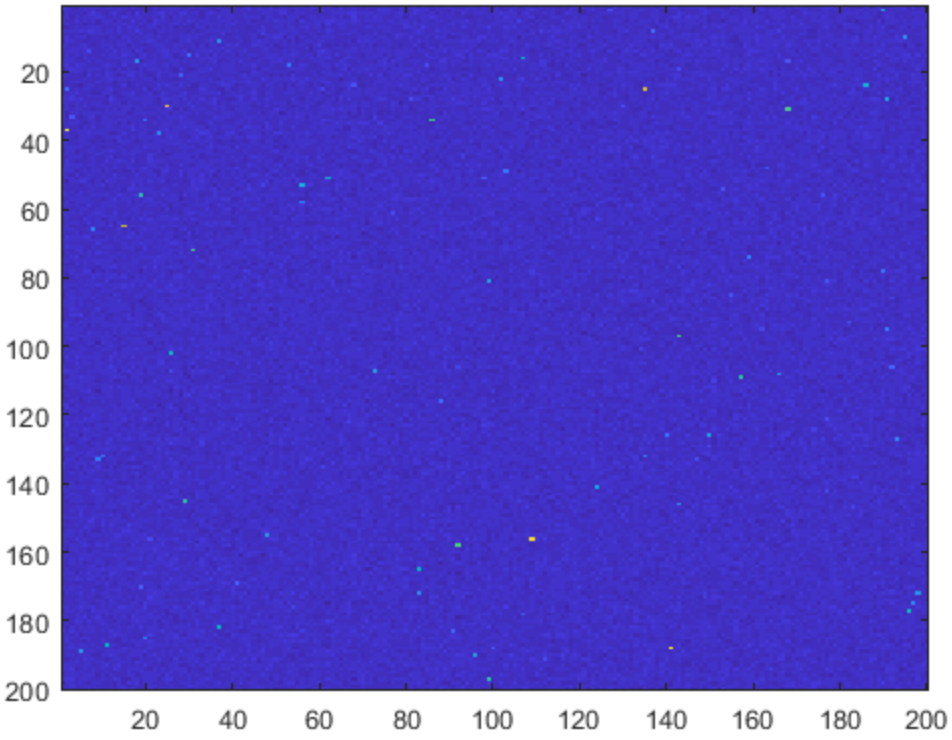
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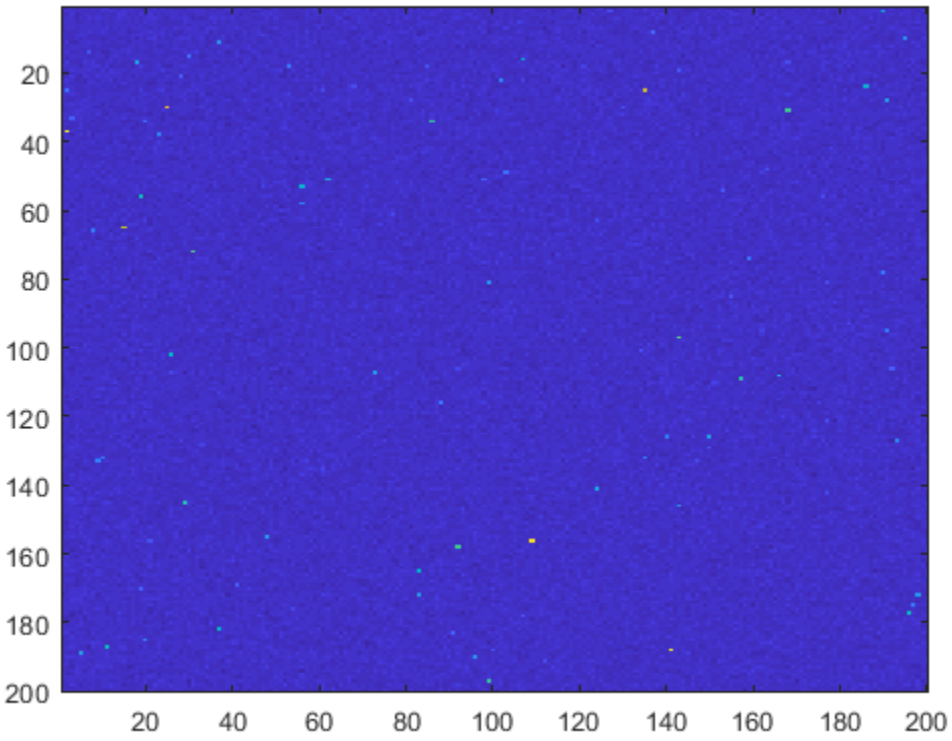
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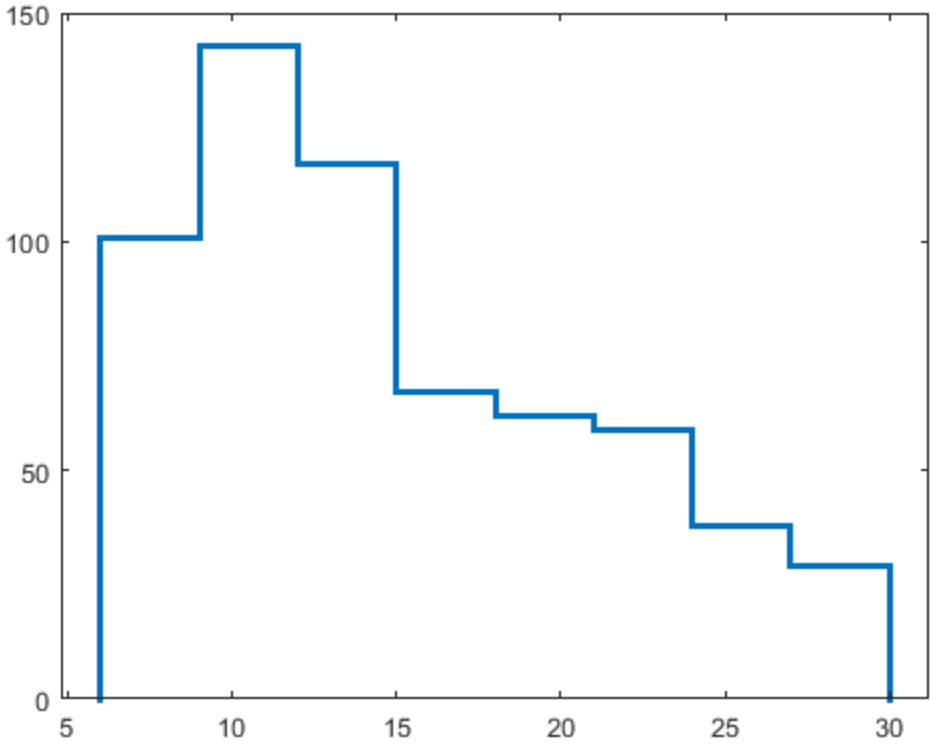
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