# Definicja śladów mionów w CREDO
## dla kamery PC

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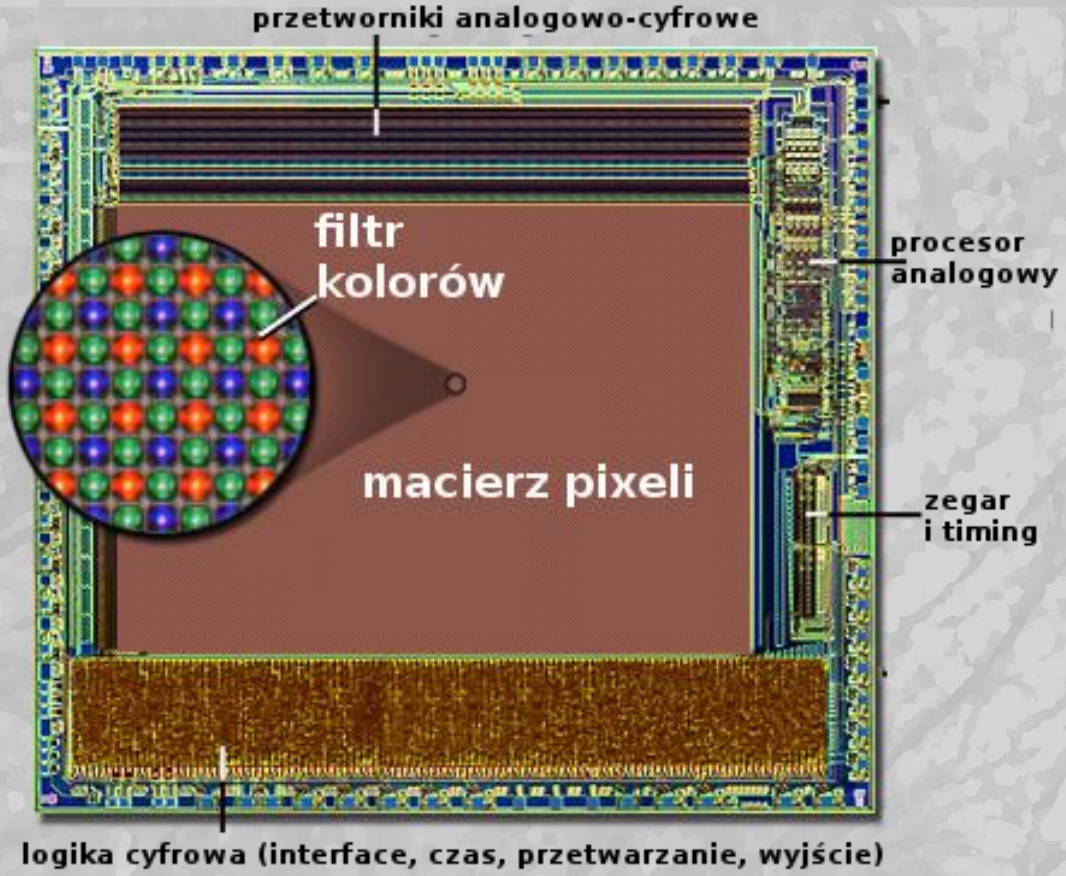
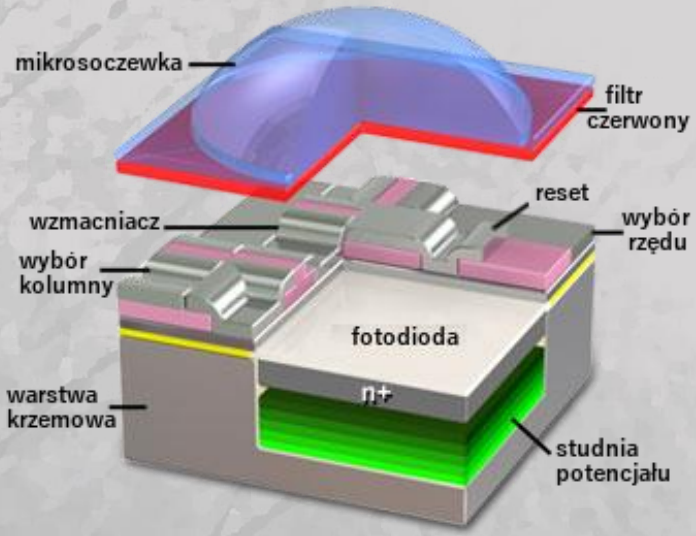
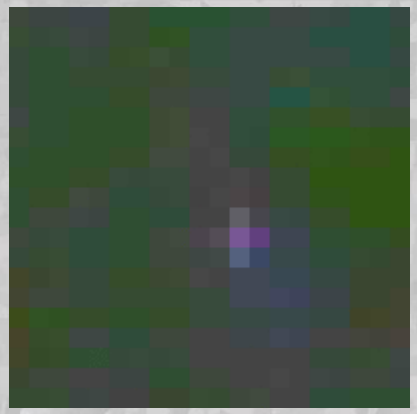
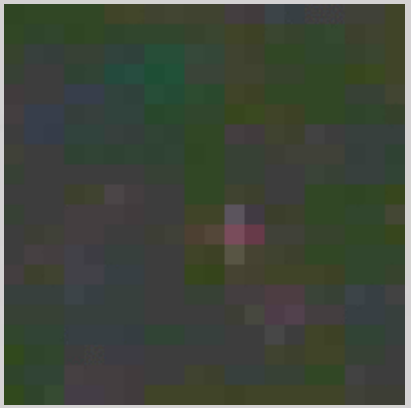
CREDO
THE QUEST FOR THE UNEXPECTED

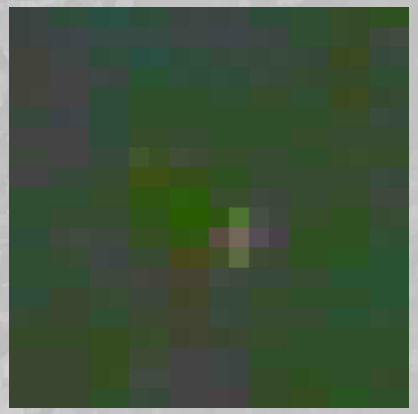

przetworniki analogowo-cyfrowe
filtr kolorów
procesor analogowy
macierz pixeli
zegar i timing
logika cyfrowa (interface, czas, przetwarzanie, wyjście)

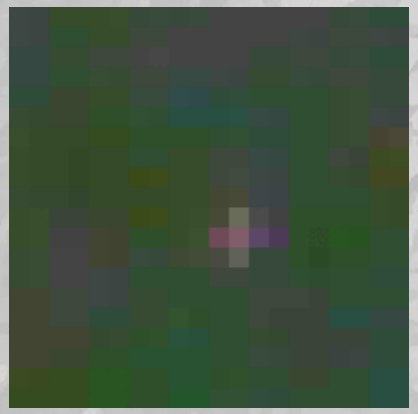

T
P

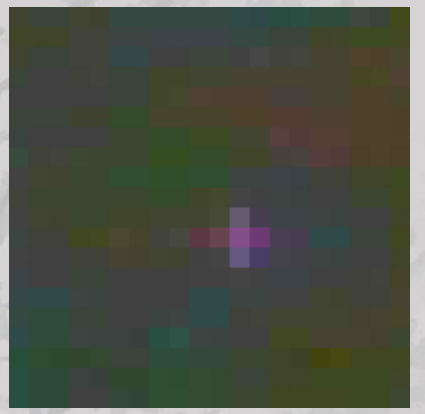

mikrosoczewka
filtr czerwony
reset
wybór rzędu
wzmacniacz
wybór kolumny
fotodioda
n+
warstwa krzemowa
studnia potencjału

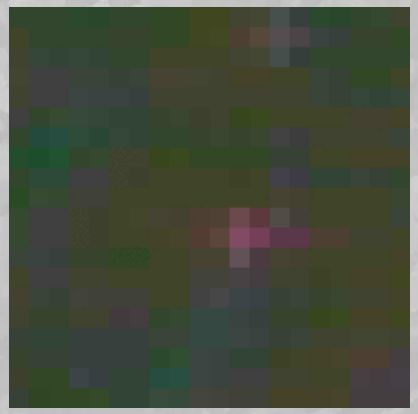


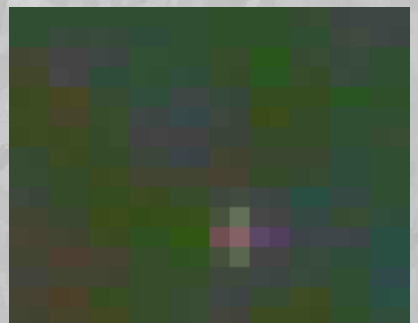


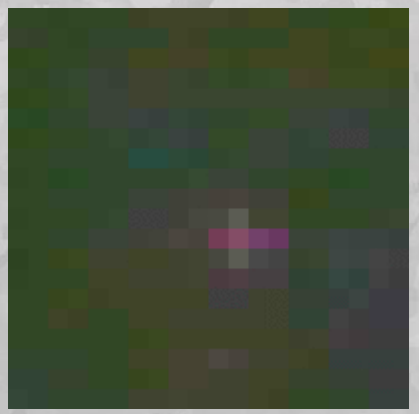




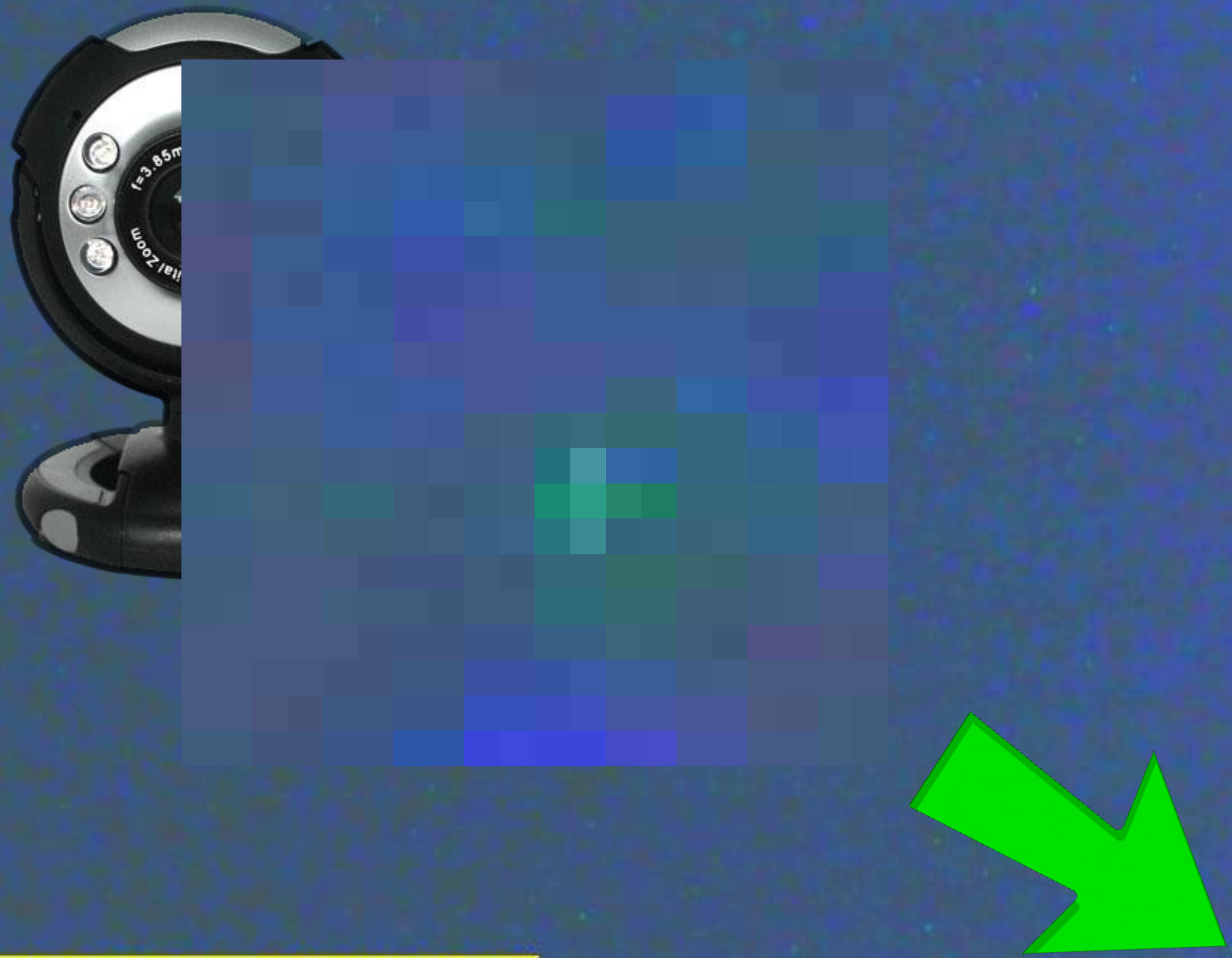






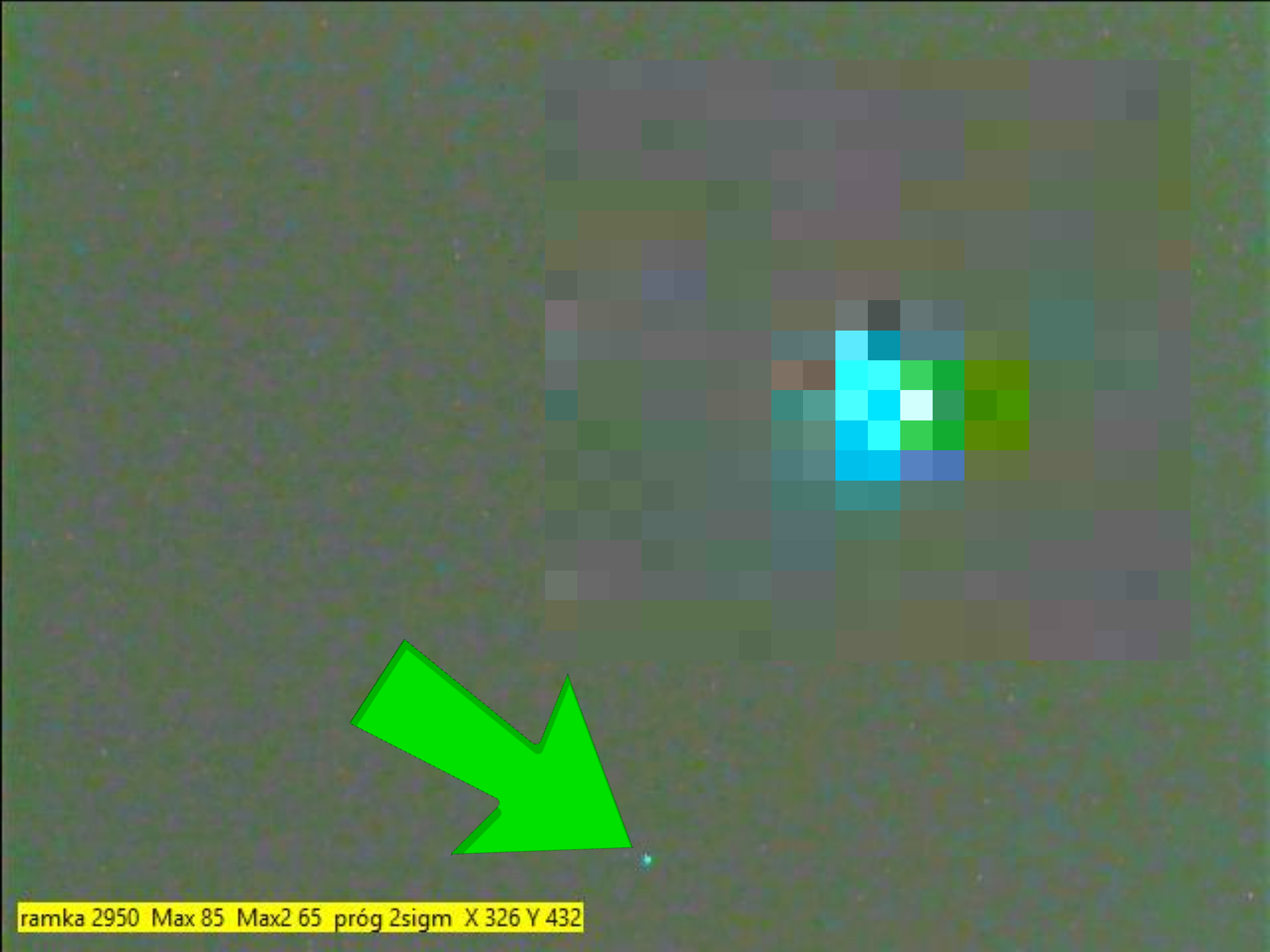



ramka 1424 Max 486 próg 9sigm hits 12-19-15 X 28 Y 101

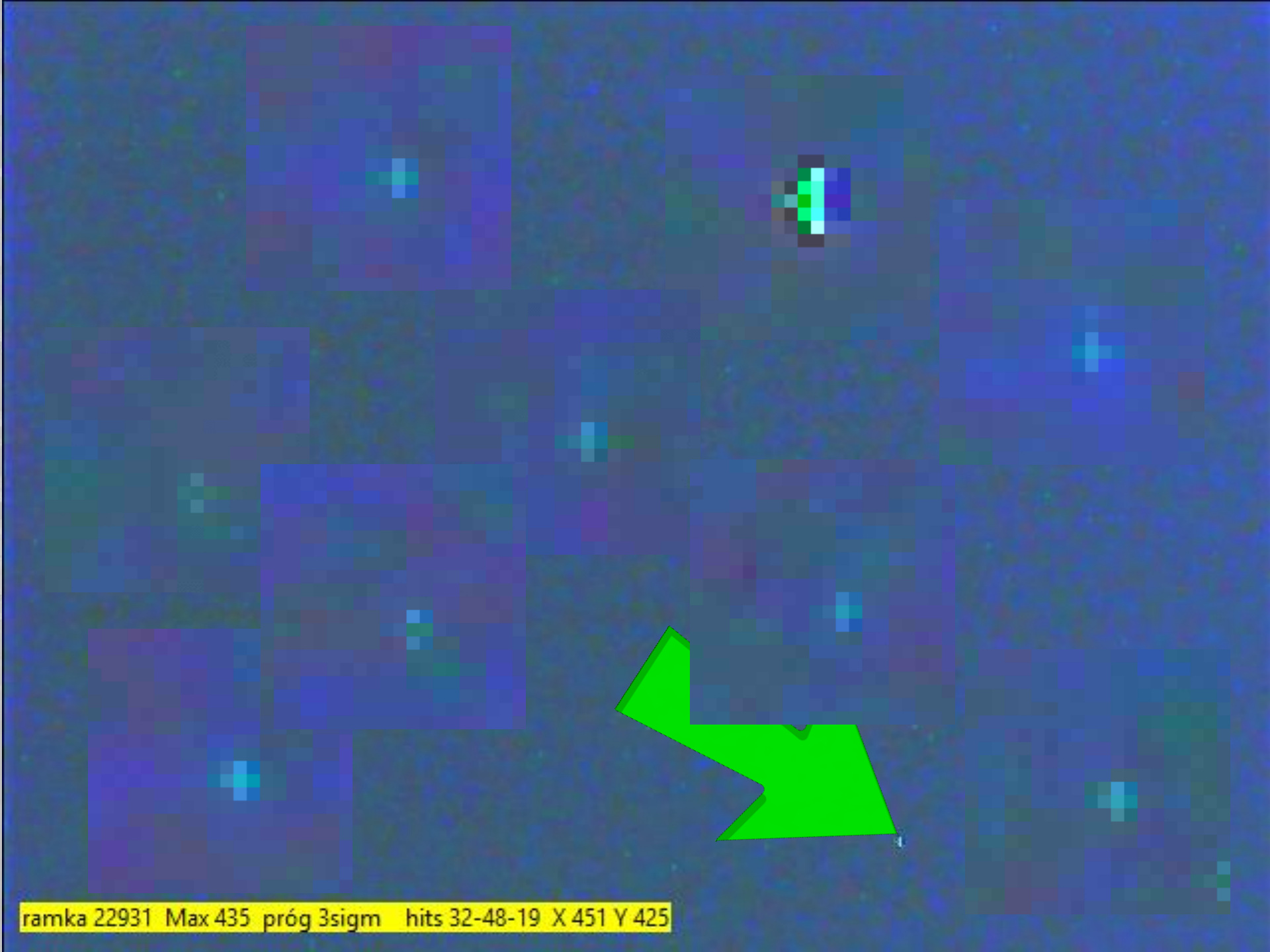



ramka 6052 Max 100 próg 3sigm hits 5-13-5 X 539 Y 155

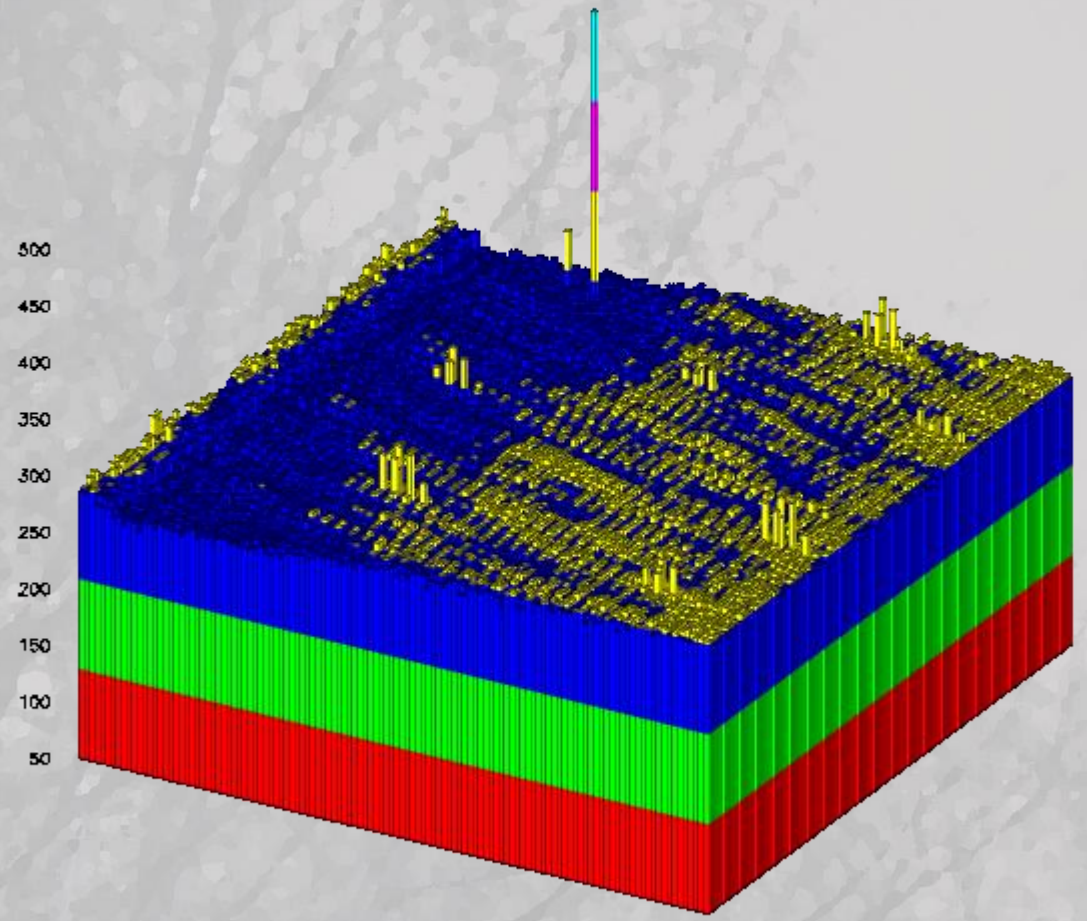

ramka 10323 Max 25 Max2 12 próg 2sigm X 228 Y 121


ramka 2950 Max 85 Max2 65 próg 2sigm X 326 Y 432

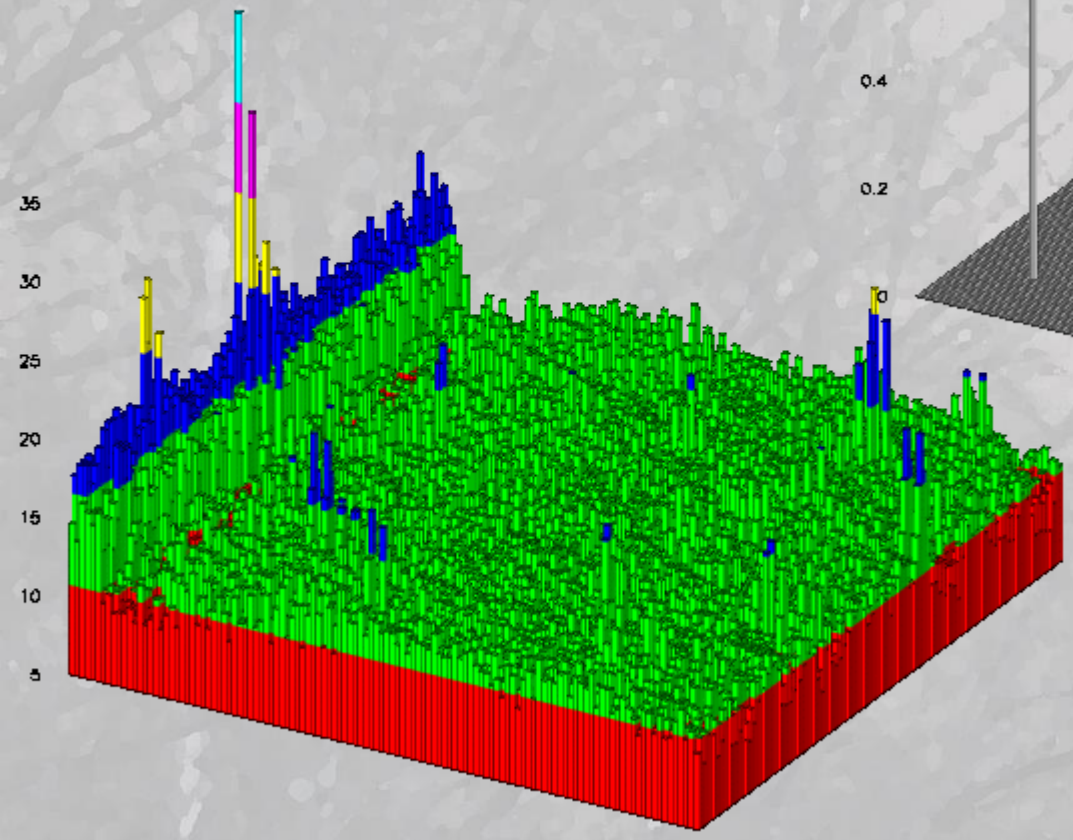

ramka 219831 Max 62 Max2 58 próg 2sigm X 292 Y 339

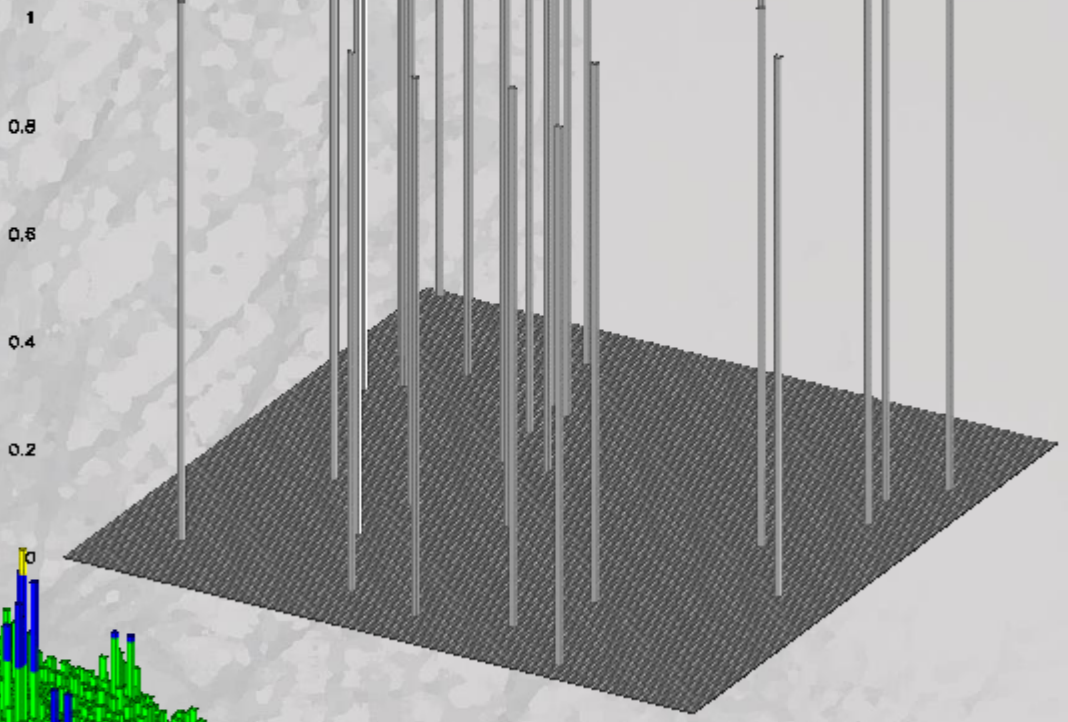

ramka 22931 Max 435 próg 3sigm hits 32-48-19 X 451 Y 425

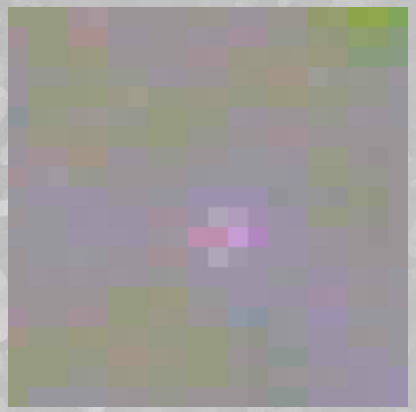
$$A_{i,j}$$

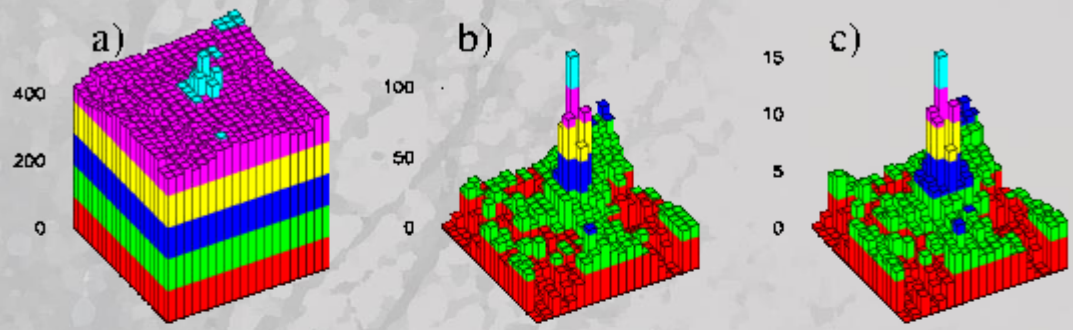


$D_{i,j}$

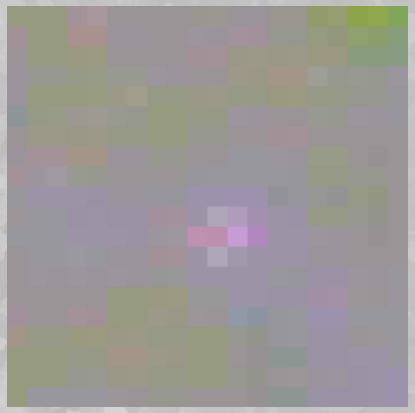


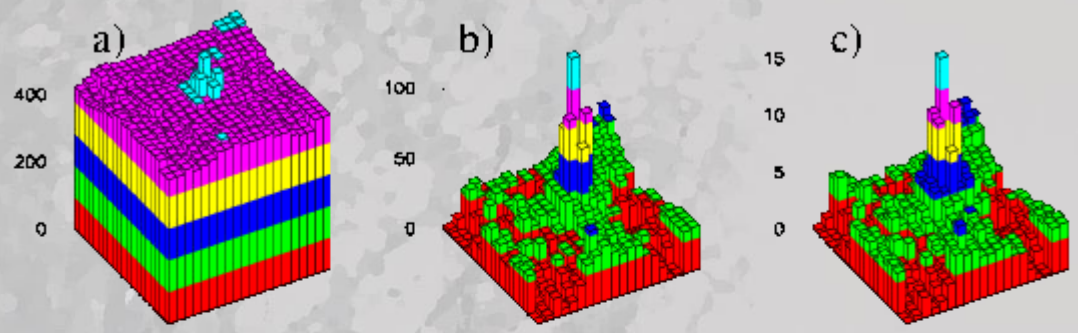








Typical events registered, rather not mouns. Camera view and raw pixel contents a), difference $S_{i,j} - A_{i,j}$ b) and the difference scaled by the dispersion $(S_{i,j} - A_{i,j}) / D_{i,j}$ c).




a)
400
200
0
b)
100
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c)
15
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5
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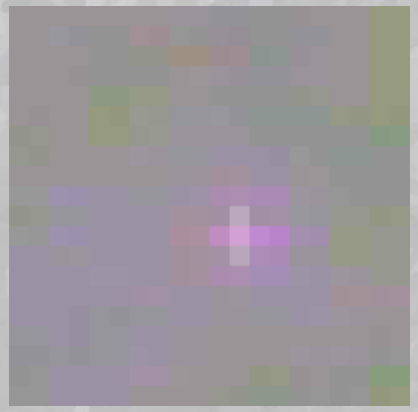

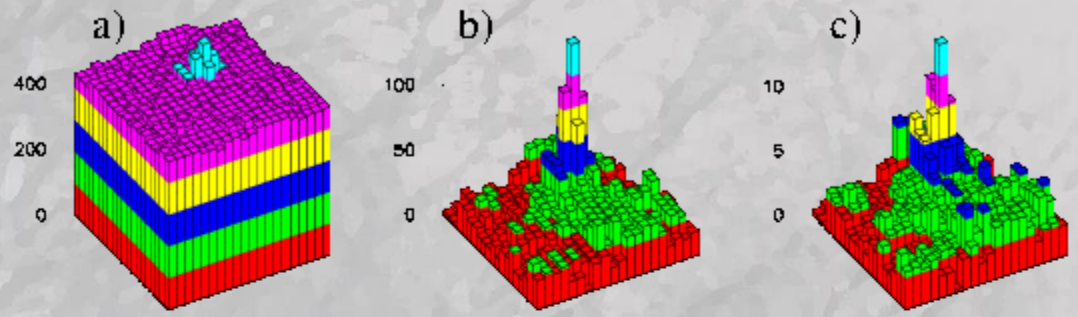
a)
400
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b)
100
50
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c)
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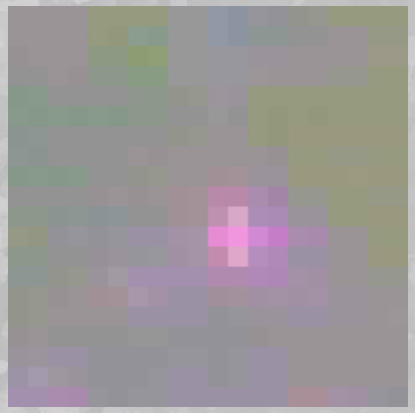

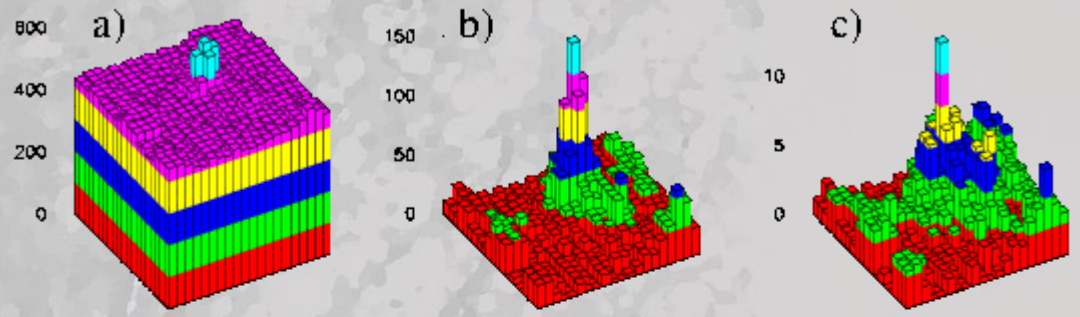
a)
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b)
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c)
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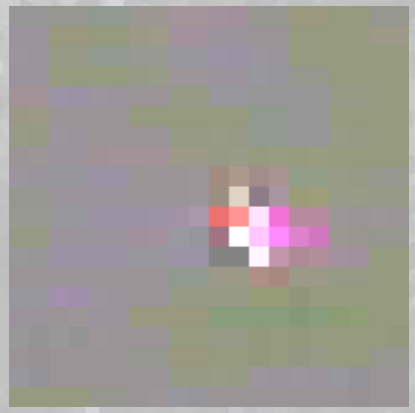

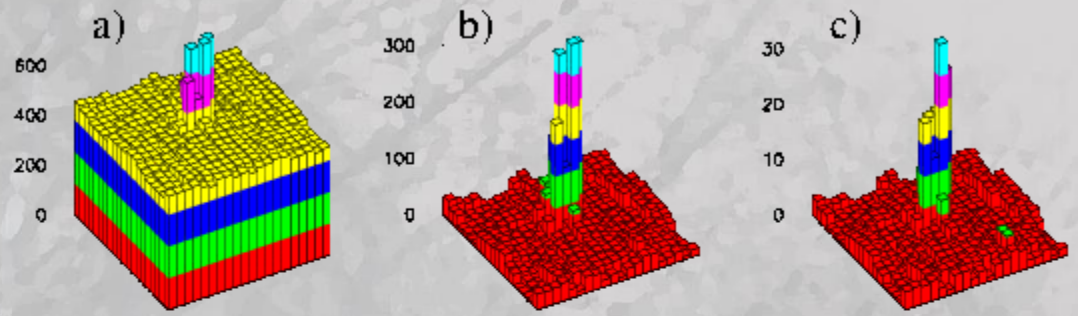
a)
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b)
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200
100
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c)
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20
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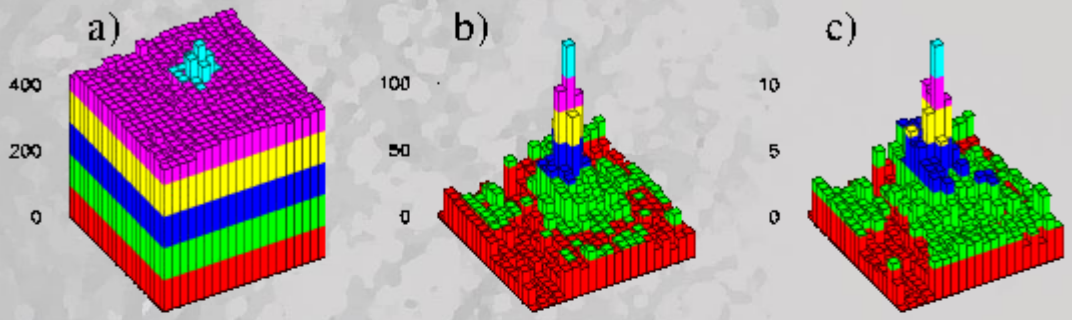
a)
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b)
100
50
0
c)
10
5
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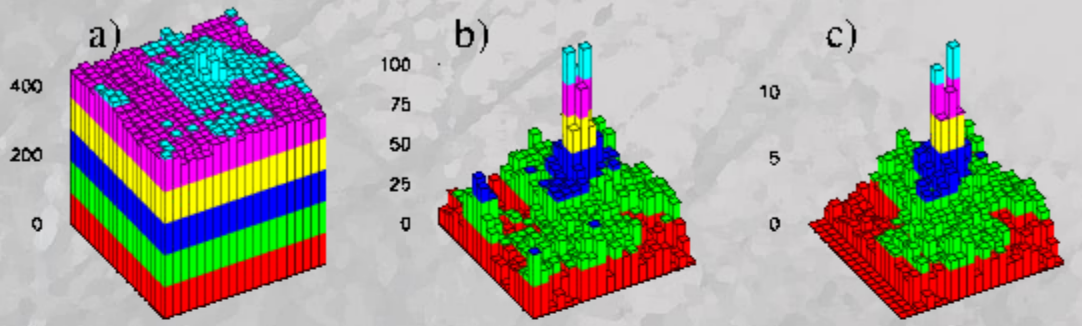
a)
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200
0
b)
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75
50
25
0
c)
10
5
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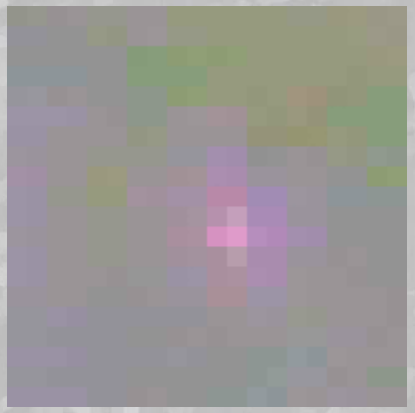

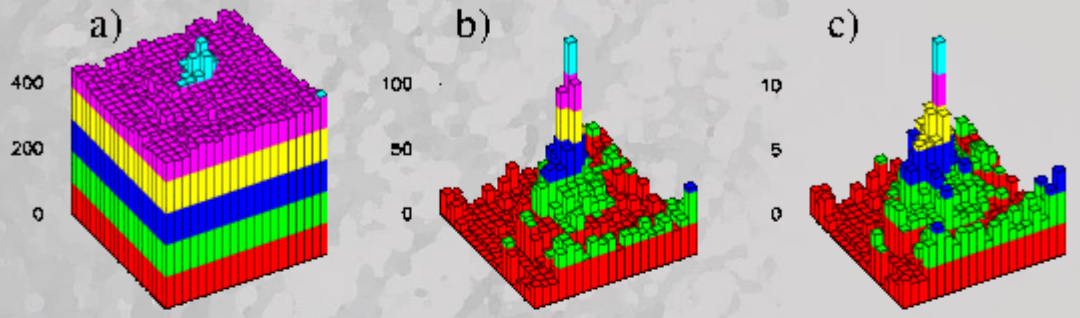
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c)
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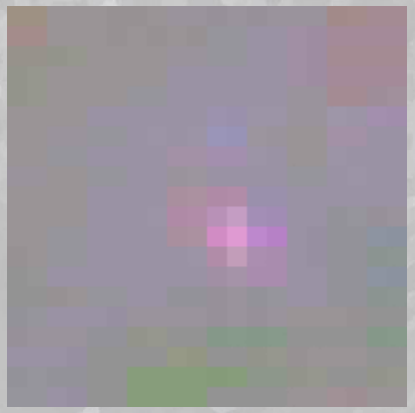

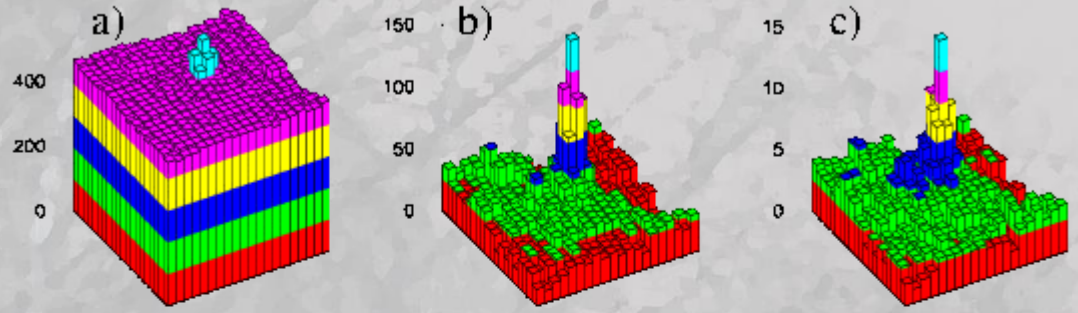
a)
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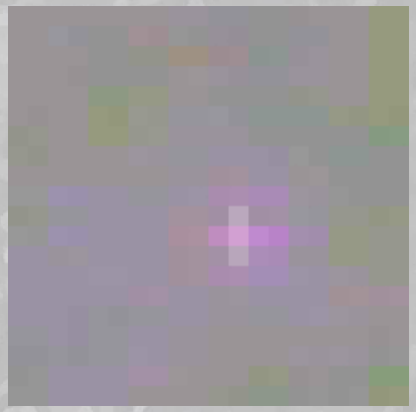

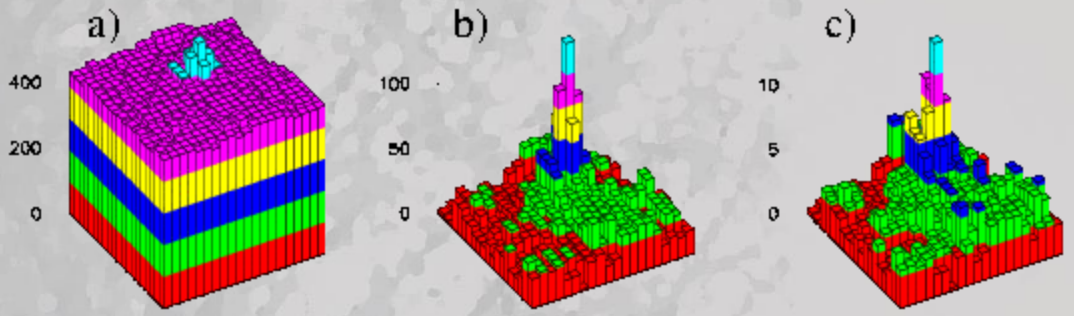
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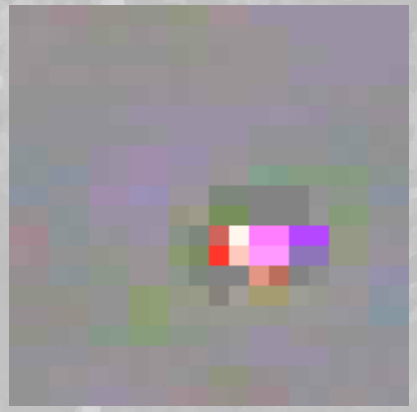

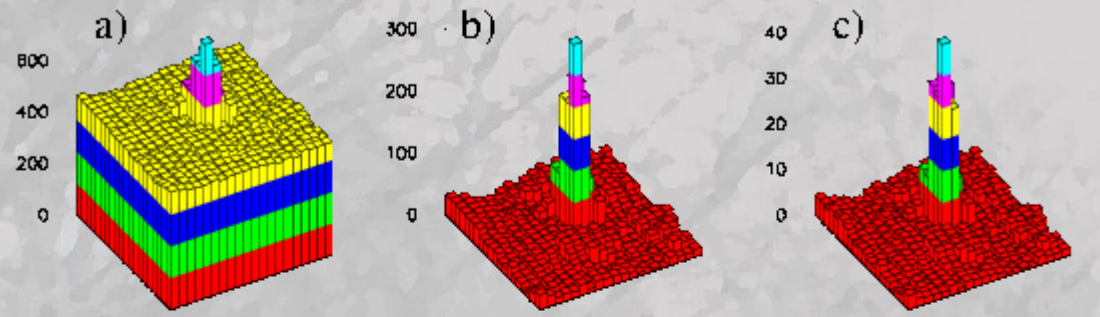
a)
800
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b)
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c)
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20
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0

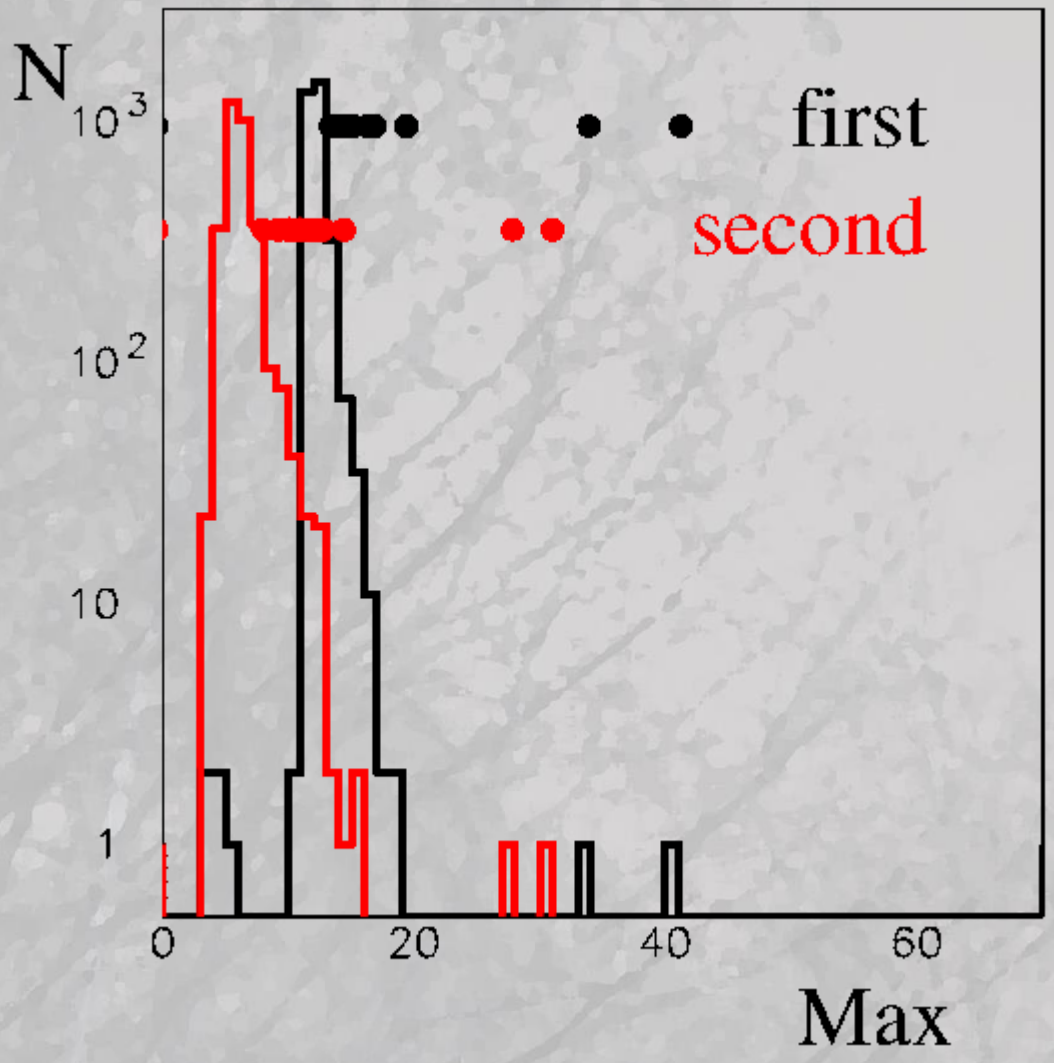
$$\text{brightness}_1 = \max\left((S_{i,j} - A_{i,j})/D_{i,j}\right)$$

$$\text{size}_k = \sum H\left((S_{i,j} - A_{i,j})/D_{i,j} - f_k \cdot \text{brightness}_1\right)$$

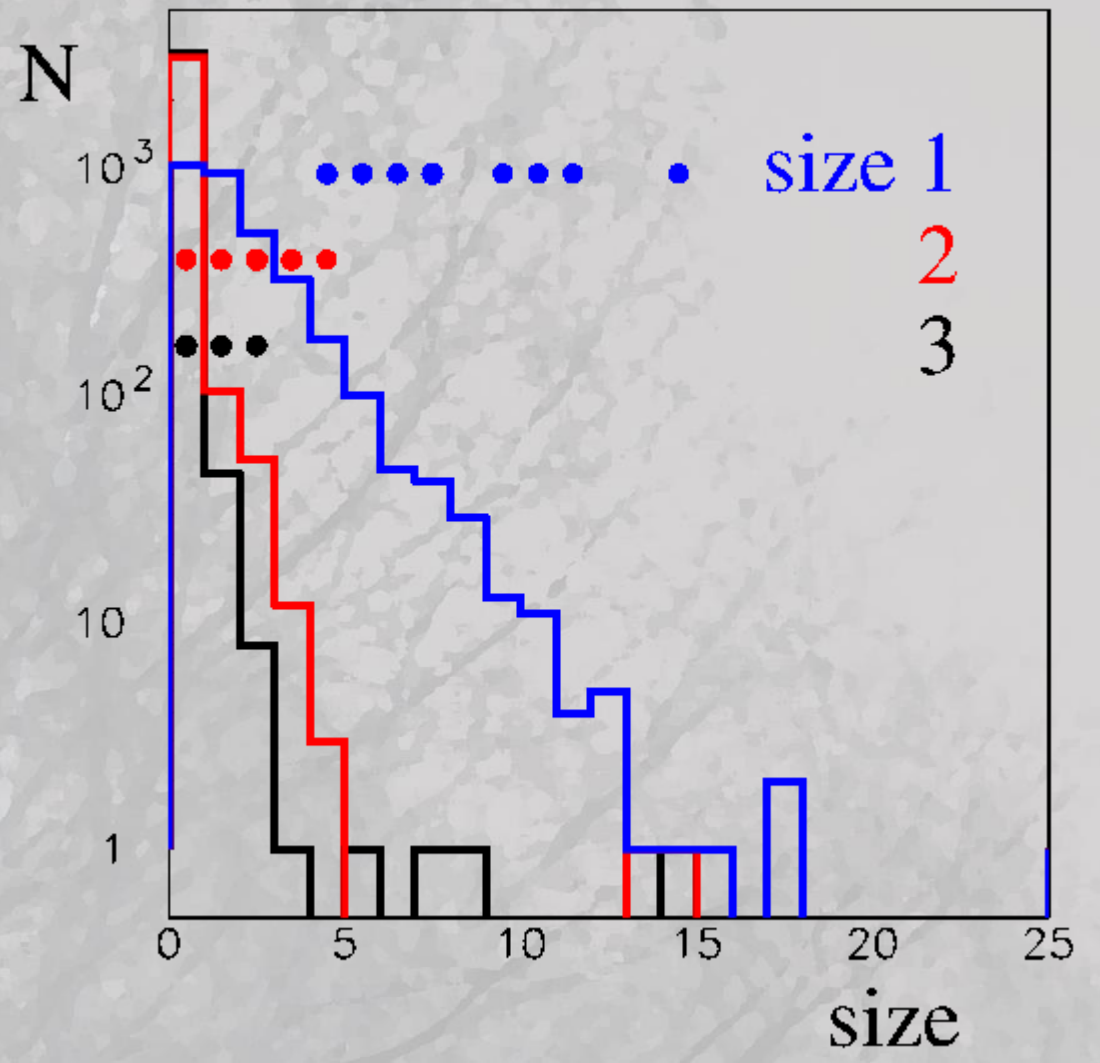
$$\text{size}'_k = \sum H\left((S_{i,j} - A_{i,j}) - f'_k \cdot \langle D \rangle\right)$$

$$\text{magnitude} = \sum_{(S_{i,j}-A_{i,j})/D_{i,j} > f_m} (S_{i,j} - A_{i,j})/D_{i,j}$$

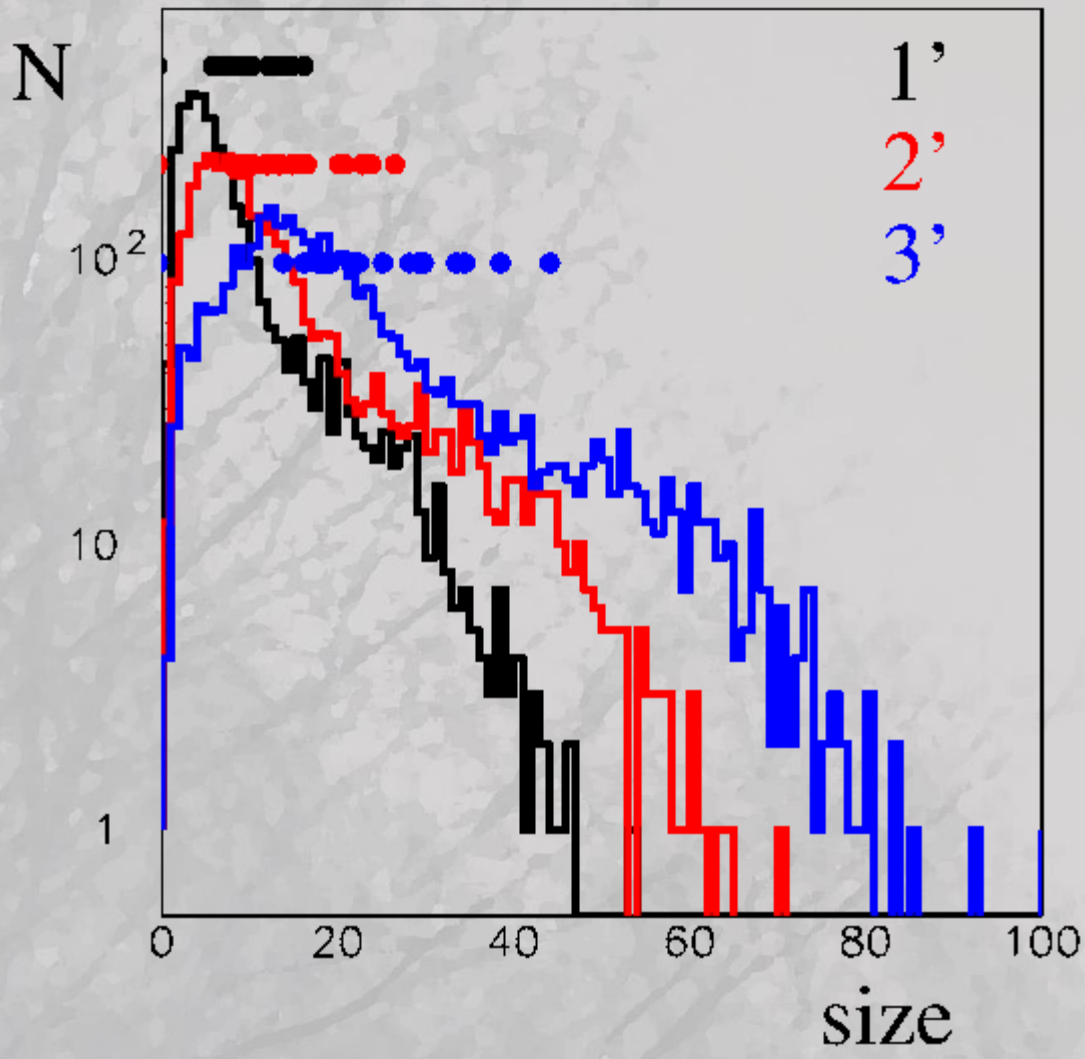
$$\text{brightness}_1 = \max\left((S_{i,j} - A_{i,j})/D_{i,j}\right)$$



$$\text{size}_k \;=\; \sum H\left((S_{i,j} - A_{i,j})/D_{i,j} \;-\; f_k \cdot \text{brightness}_1\right)$$



$$\mathrm{size}'_k = \sum H\left((S_{i,j} - A_{i,j}) - f' \cdot \langle D \rangle\right)$$



$$\text{magnitude} = \sum_{(S_{i,j}-A_{i,j})/D_{i,j} > f_m} (S_{i,j} - A_{i,j})/D_{i,j}$$