# Upload the .json file of your colormap here

Choose File 5B.json

# Colormap



### **Global Distances**

The cell (i,j) contains the distance between the i-th and j-th color of the color map, which are displayed on the diagonal.

CieLAB 1976

Maximum = 77.6

Average = 40.16

Minimum = 6.38

Deviation = 19.93

CieLAB 2000

Maximum = 59.47

Average = 32.31

Minimum = 4.38

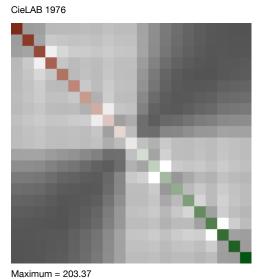
Deviation = 15.26

CieCAM 2002

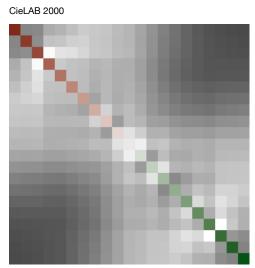
Maximum = 66.94 Average = 31.02 Minimum = 5.41 Deviation = 15.25

### **Global Speeds**

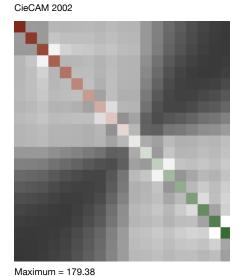
The cell (i,j) contains the ratio of the distance between the i-th and j-th color of the color map and the difference of their corresponding values. The higher the global speed, the bett global discriminative power of the colormap.



Average = 127.04



Maximum = 159.98 Average = 102.13



Average = 103.42

Minimum = 71.86 Deviation = 35.74

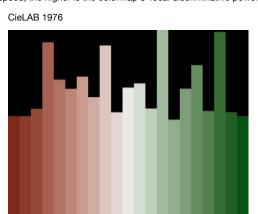
Minimum = 50.19

Deviation = 25.95

Minimum = 41.16 Deviation = 37.72

**Local Speeds** 

The height of each column i shows the ratio of the distance between the i-th and (i+1)-st color of the color map and the difference of their corresponding values. The higher the local speed, the higher is the colormap's' local discriminative power in this area.



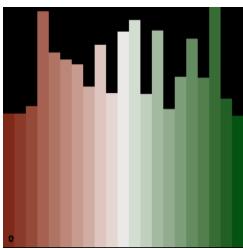
Maximum = 203.37

Average = 156.08

Minimum = 127.7

Deviation = 24.09





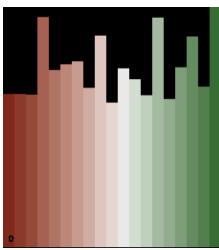
Maximum = 159.98

Average = 120.44

Minimum = 87.77

Deviation = 22.95

#### CieCAM 2002



Maximum = 179.38

Average = 133.84

Minimum = 108.22

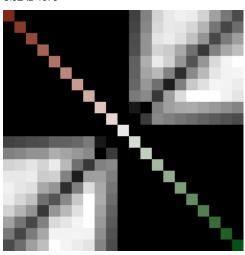
Deviation = 21.78

### **Global Triangle Distance Difference**

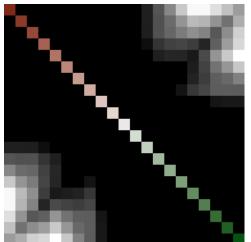
The cell (i,j) contains the asolute value of the mimum of |c(i)-c(j)|-|c(i)-c(k)| over all k between i and j (i < k < j). As long as it is positive, the middle color is closer to each of the two ou ones than theses are to each other. That means, the colormap has an intuitive order everywhere between i and j. That is why, we only plot the values that are nageative, i.e. where t global, intuitive order is violated.

CieLAB 1976

Minimum = -18

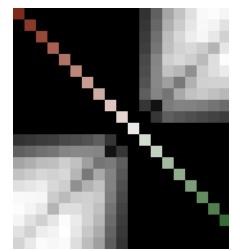


CieLAB 2000



Minimum = -14.39

CieCAM 2002

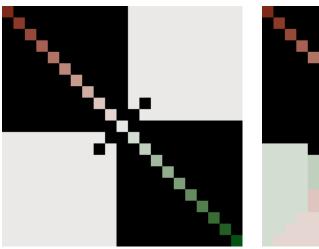


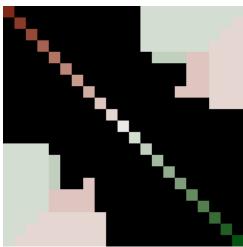
Minimum = -30.48

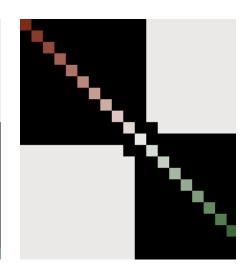
If there are k between i and j that violates the intuitive order, we plot the color c(k) that does so the most, i.e. the one that produces the minimum diplayed in the visualization above

CieLAB 1976

CieCAM 2002

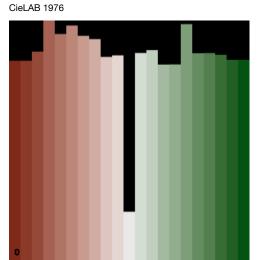


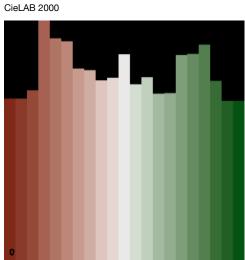


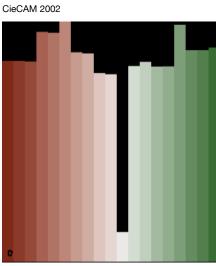


# **Local Triangle Distance Difference**

The height of each column i shows the absolute value of the minimum of |c(i)-c(i-1)|-|c(i+1)-c(i-1)| and |c(i+1)-c(i)|-|c(i+1)-c(i-1)|. As long as it is positive, the middle color c(i) is closer of the two outer ones than theses are to each other. That means, the colormap has a local, intuitive order in this area. The bars strat at zero.







Minimum = 16.12

Minimum = 43.74

Minimum = 8.62

### **Stress**

The stress is a global measure of how much the average color difference deviates from the corresponding value differencess.

 CieLAB 1976
 CieLAB 2000
 CieCAM 2002

 Stress = 56.68
 Stress = 66.53
 Stress = 58.47

# The Values for Copying

Columns are separated with "," and if applicable rows with ";" and the third tensor direction with ":".

| Color Measure \ Distance Metric    | CieLAB 1976                              | CieLAB 2000                              | CieCAM 2002                              |
|------------------------------------|--|--|--|
| Global Distances                   | 0,6.53,13.34,22.97,30.75                 | 0,4.46,9.14,16.91,23.36,                 | 0,5.73,11.43,20.01,26.54                 |
| Global Speeds                      | 0,130.69,133.48,153.18,1                 | 0,89.24,91.48,112.76,116                 | 0,114.63,114.31,133.4,18                 |
| Local Speeds                       | 130.69,130.69,136.89,19                  | 89.24,89.24,94.21,157.15                 | 114.63,114.63,114.15,17                  |
| Triangle Distance Differences      | 0, | 0, | 0, |
| Min Triangle Distance Differences  | 0,0,65.03,43.52,32.37,26                 | 0,0,44.37,29.3,21.45,17.4                | 0,0,57,38.2,28.6,22.91,19                |
| Local Triangle Distance Difference | 65.03,65.03,68,78.07,73.                 | 44.37,44.37,46.63,65.64,                 | 57,57,56.83,65.21,64.95,                 |