

```

1  class Colorbar(): # The original version
2
3  def __init__(self, cmap, vmax, colormap_scale, font_size, size=.5):
4      self.cmap = cmap
5      self.vmax = vmax
6      self.colormap_scale = colormap_scale
7      self.font_size = font_size
8      self.size = size
9
10
11
12  def draw(self, painter):
13      total_h = SCREEN_H*self.size
14      step = total_h / self.cmap.levels
15      bar_w = SCREEN_W/25
16
17      lab = pygamelet.text.Label('',
18                                color=FONT_COLOR,
19                                font_name=FONT_NAME,
20                                font_size=int(.8*self.font_size),
21                                x=SCREEN_W, y=SCREEN_H,
22                                anchor_x='right', anchor_y='center')
23
24      edges, colors = self.cmap.get_boundaries(self.vmax, self.colormap_scale)
25
26      for i in range(self.cmap.levels+1):
27          if i < self.cmap.levels:
28              painter.set_color(colors[i][:-1])
29              painter.rect(SCREEN_W-2*bar_w/2, SCREEN_H-total_h*1.5+step*i,
30                          SCREEN_W-bar_w/2, SCREEN_H-total_h*1.5+step*(i+1))
31              lab.x = SCREEN_W-2*bar_w/2*1.1
32              lab.y = SCREEN_H-total_h*1.5+step*i
33              if self.colormap_scale == 'log':
34                  lab.text = '%.2E' % edges[i]
35              else:
36                  lab.text = '%d' % edges[i]
37              lab.draw()
38
39  def add_colorbar(self, cmap, vmax, colormap_scale):
40      self.colorbar = UiManager.Colorbar(cmap, vmax, colormap_scale, self.font_size)
41
42  #####
43  class Colorbar(): # The proposed change see the comments,, but currently no succes with this
44  yet
45  def __init__(self, cmap, vmax,vmin,colormap_scale,font_size = 15, size=.5): #### vmin
46  is additional here
47
48      self.cmap = cmap
49      self.vmax = vmax
50      self.vmin = vmin
51      self.colormap_scale = colormap_scale
52      self.font_size = font_size
53      self.size = size
54
55      def draw(self, painter):
56          total_h = SCREEN_H*self.size
57          step = total_h / self.cmap.levels
58          bar_w = SCREEN_W/25
59          lab = pygamelet.text.Label('',
60                                    color=FONT_COLOR,
61                                    font_name=FONT_NAME,
62                                    font_size=int(.8*self.font_size),
63                                    x=SCREEN_W, y=SCREEN_H,
64                                    anchor_x='right', anchor_y='center')
65
66          edges, colors = self.cmap.get_boundaries(self.vmax-self.vmin,
67          self.colormap_scale) ### the value vmin is subtracted from vmax
68          for i in range(self.cmap.levels+1):
69              if i < self.cmap.levels:
70                  painter.set_color(colors[i][:-1])
71                  painter.rect(SCREEN_W-2*bar_w/2,
72                              SCREEN_H-total_h*1.5+step*i,
73                              SCREEN_W-bar_w/2,
74                              SCREEN_H-total_h*1.5+step*(i+1))
75                  lab.x = SCREEN_W-2*bar_w/2*1.1
76                  lab.y = SCREEN_H-total_h*1.5+step*i
77                  if self.colormap_scale == 'log':
78                      lab.text = '%.2E' % (edges[i] + self.vmin) ####
79                  else:
80                      lab.text = '%d' % (edges[i] + self.vmin) ####
81                  lab.draw()
82
83      def add_colorbar(self, cmap, vmax, colormap_scale, vmin = 0):
84          self.colorbar = MyUiManager.Colorbar(cmap, vmax, colormap_scale, vmin, self.font_size)
85
86
87
88

```