

In [1]:

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#
#   File:
#       cn02p.py
#
#   Synopsis:
#       Draws a simple color filled contour.
#
#   Category:
#       Contouring
#
#   Author:
#       Fred Clare (based on an example of Dave Brown)
#
#   Date of initial publication:
#       November, 2004
#
#   Description:
#       Given a simple mathematically generated data set,
#       demonstrates Ngl.contour with color filled contour
#       levels.
#
#   Effects illustrated:
#       o Drawing a contour visualization with color filled
#         contour levels.
#
#   Output
#       A single visualization is produced.
#
#
from __future__ import print_function
import Ngl
import numpy

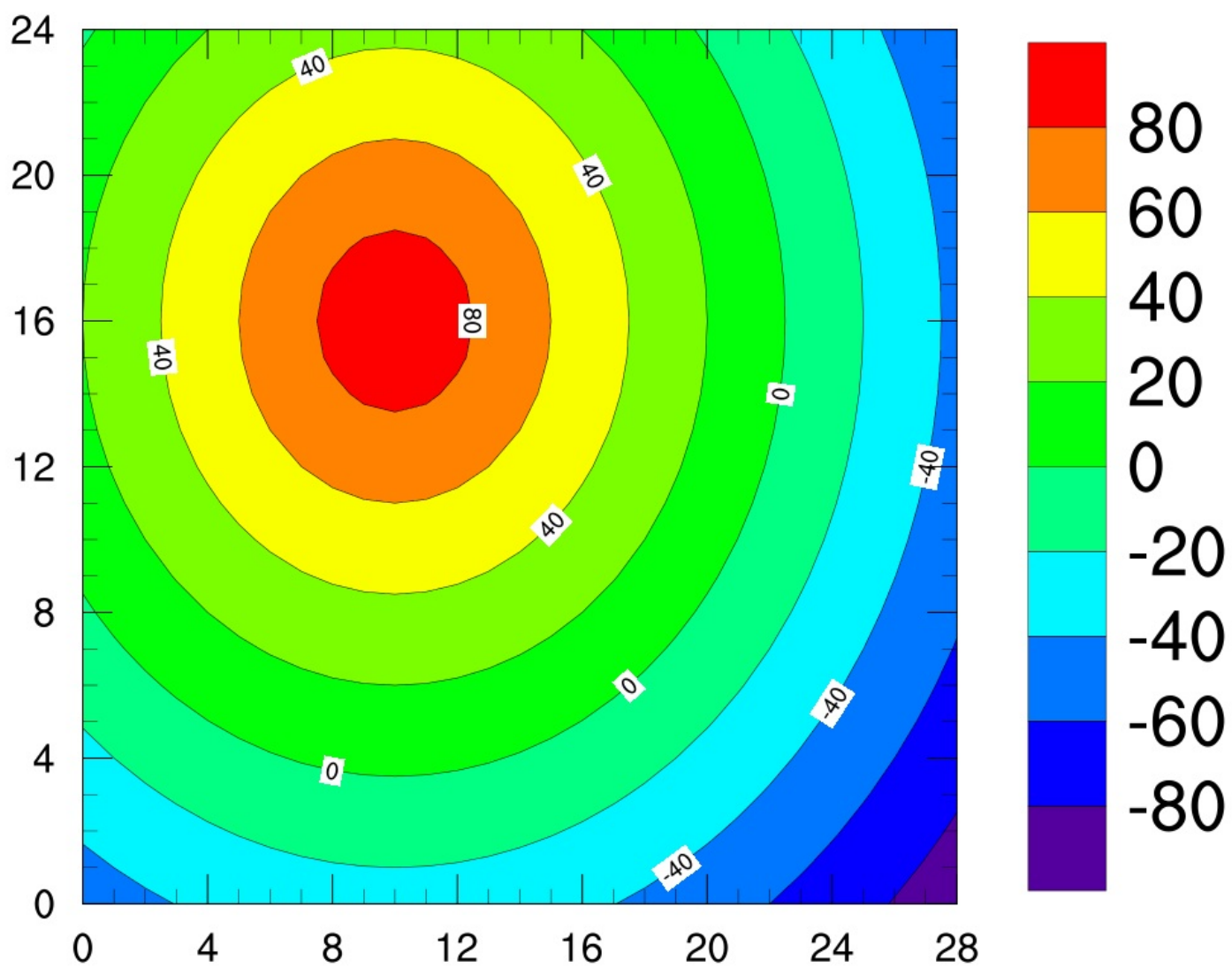
M=29
N=25
T = numpy.zeros([N,M])

#
# create a mound as a test data set
#
jspn = numpy.power(range(-M//2+5,M//2+5),2)
ispn = numpy.power(range(-N//2-3,N//2-3),2)
for i in range(len(ispn)):
    T[i,:] = ispn[i] + jspn
T = 100. - 8.*numpy.sqrt(T)

#
# Open a workstation and draw the contour plot with color fill.
#
wks_type = "png"
wks = Ngl.open_wks(wks_type,"cn02p")

res = Ngl.Resources()
res.cnFillOn = True
Ngl.contour(wks,T,res)

Ngl.end()
```



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