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Corrigendum to "The Zero Emissions Commitment Model Intercomparison Project (ZECMIP) contribution to C4MIP: quantifying committed climate changes following zero carbon emissions" published in Geosci. Model Dev., 12, 4375–4385, 2019

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An error has been found in the calculation of the emissions for the Bell-shaped simulations B1–B3.

Due to a rounding error in Python code, the calculation of $\sigma = 100/6$ resulted in an integer value of 16 rather than a float value of 16.667. The result is that the emissions presented in table A1 and provided on the C4MIP website are slightly inconsistent with the stated equation.

The difference in cumulative total is minor but non-zero. The values given sum to 750.695, 1000.927, and 2001.855 PgC, respectively, rather than 750, 1000, and 2000 PgC. We believe that most model groups have used the data provided, and so the recommendation from ZECMIP is to continue to use these numbers. If groups have normalised their emissions profile to give the correct cumulative total, then that is acceptable as the impact will be very minor (< 0.1 %). But if groups need to derive their own emissions – for example to create monthly timeseries – then we now provide the python code below to replicate the values pub-

lished. Essentially, a value of 96/16 should be used in place of 100/16. Note that Python2 and Python3 behave differently with respect to integer division.

```
#---------------------------------------
# Import modules
#---------------------------------------
import numpy as np

#---------------------------------------
# Parameters
#---------------------------------------

#Period = 100 # use 96 instead of 100 to
 re-create published values
Period = 96

CumulativeE = [750,1000,2000] # cumulative

emissions (PgC)
m=np.size(CumulativeE)

#---------------------------------------
# Variables
#---------------------------------------
Time = np.arange(0.5,200.5,1)
t=np.size(Time)
Pathways = np.zeros((t,m))

#---------------------------------------
# Create Emission Pathways
#---------------------------------------

for j in range(0,m):

    #---------------------------------------

    # Constants
    #---------------------------------------

    SD=Period/6
    CE=CumulativeE[j]/0.997300204
    Mu=Period/2

    #---------------------------------------

    # Function
    #---------------------------------------


    Emissions = CE*((1/(SD*np.sqrt(2*np.pi)))

    *np.exp(-0.5*(((Time-Mu)/SD)**2)))

    # Zero after period ends

    Emissions[Period:]=0

    # enter into holding array
    Pathways[:,j]=Emissions

print(Pathways)
```