

A Fatal Flaw in Global Warming Science

Why human CO2 does not change climate

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Basic Science of a Changing Climate

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by

Edwin X Berry

PhD, Physics, Nevada

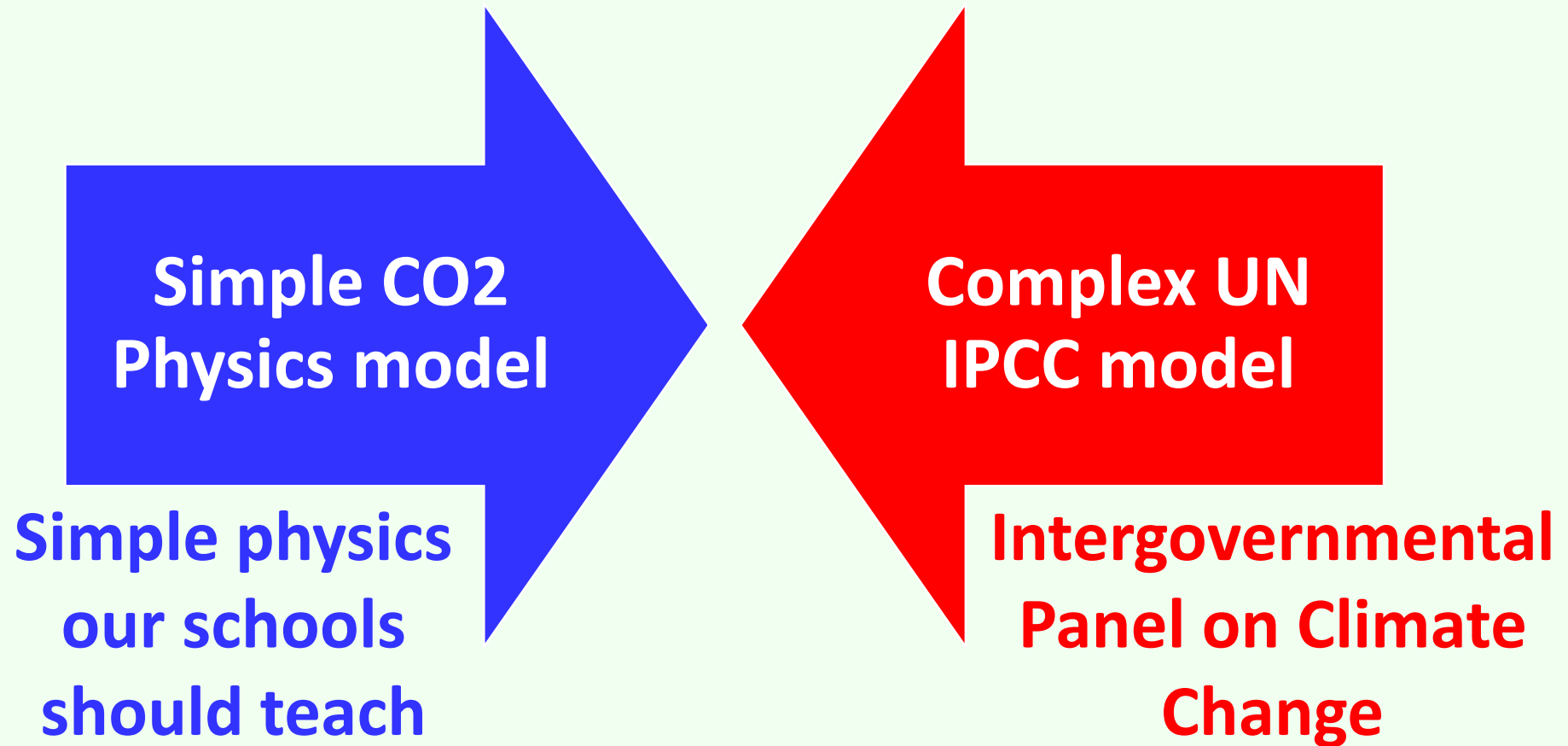
MA, Physics, Dartmouth

BS, Engineering, Caltech

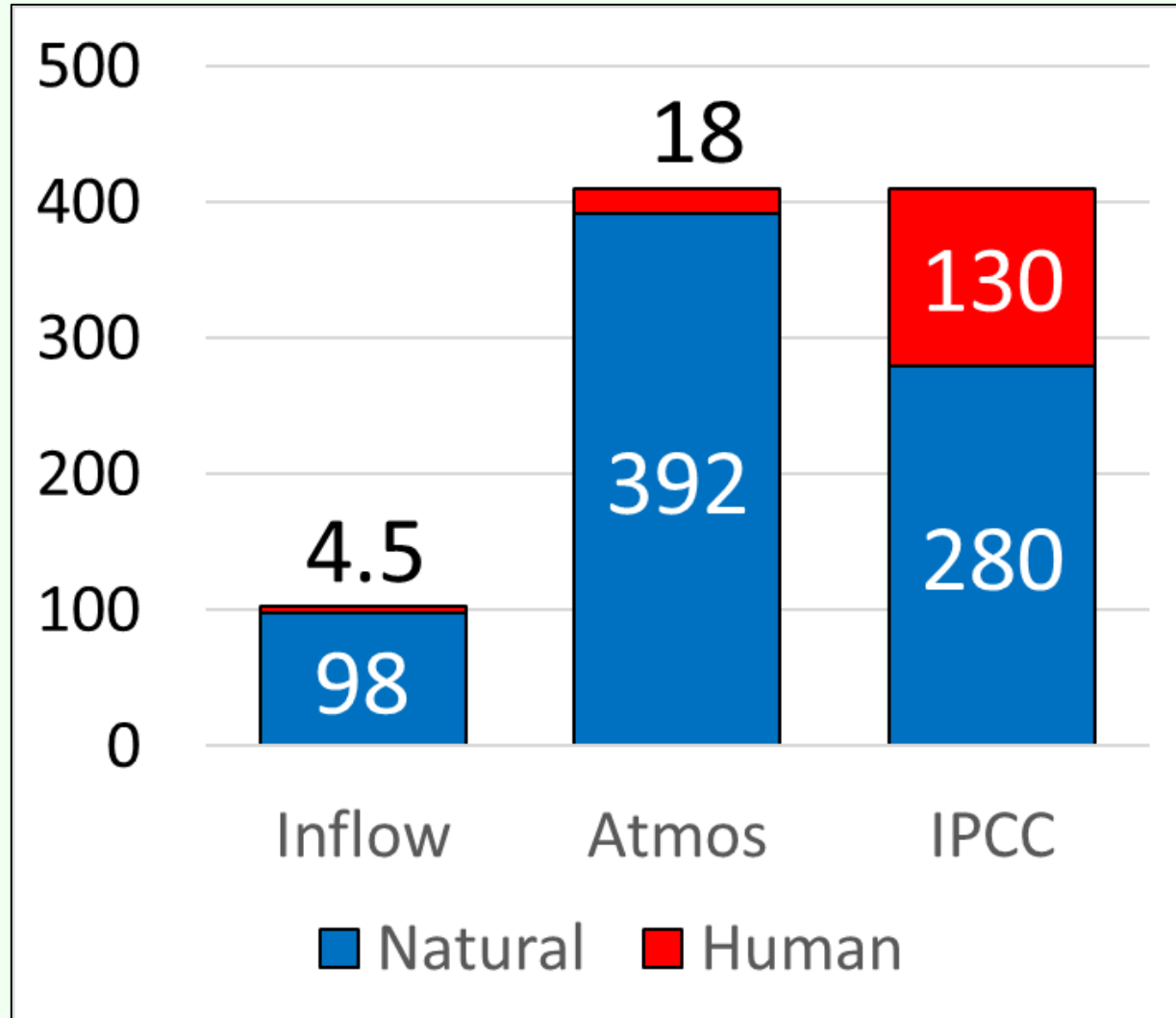
AMS Certified Consulting Meteorologist

edberry.com

Climate Model Shootout



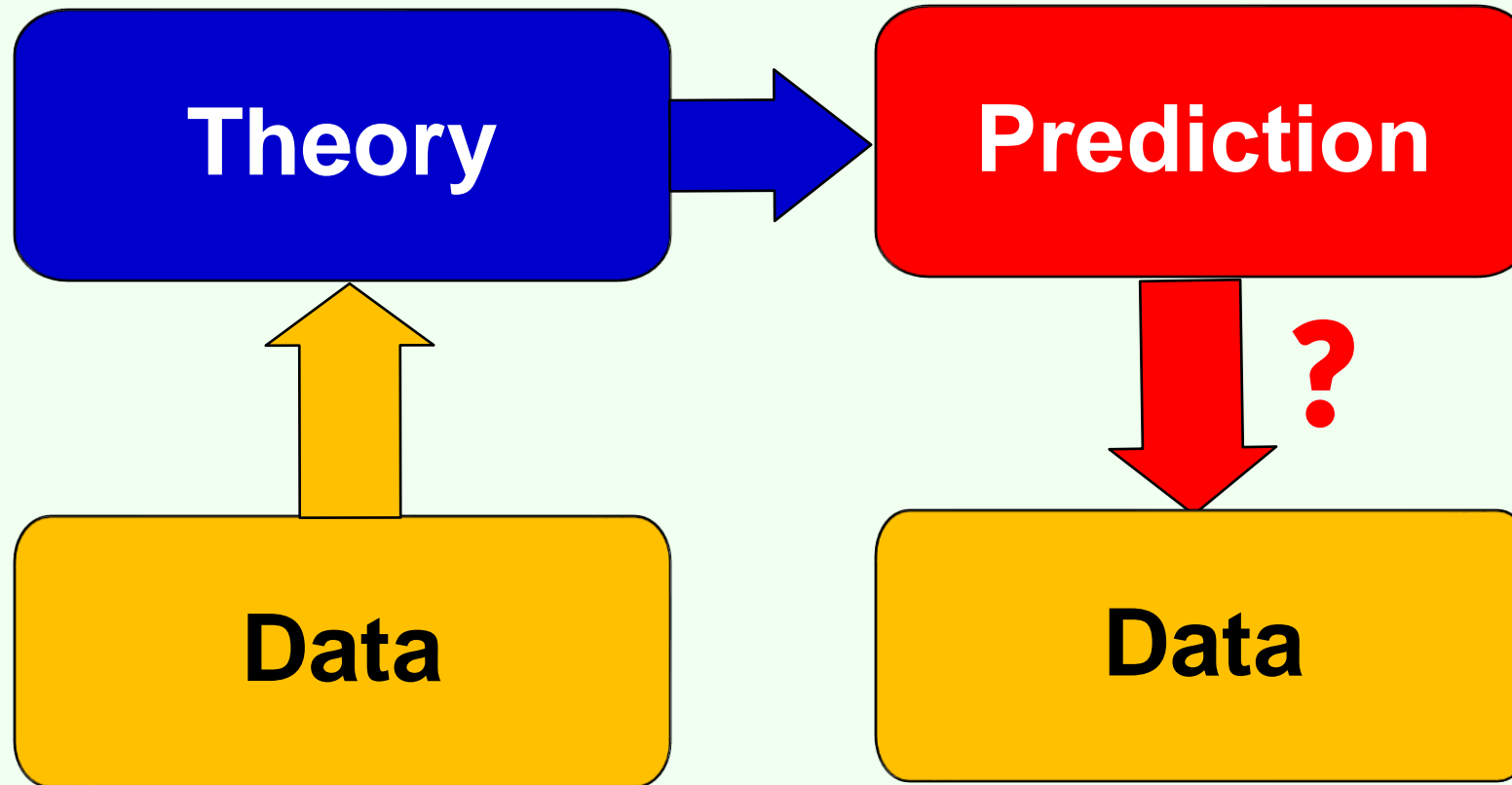
The Problem Defined



Physics shows the Inflow ratio sets the atmosphere ratio of human to natural CO₂.

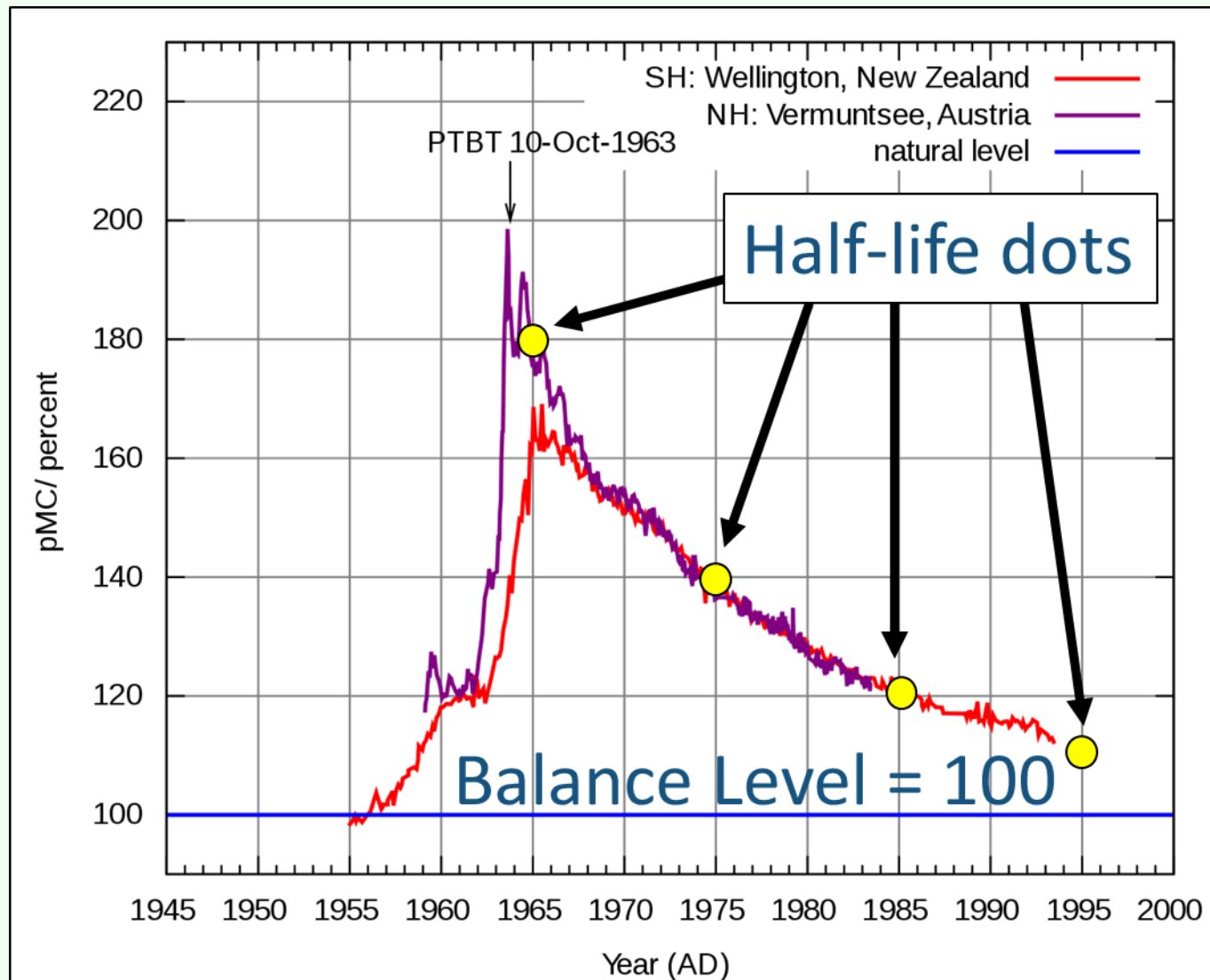
But UN says natural CO₂ stayed at 280 while human CO₂ caused all increase.

We follow the Scientific Method



If your Prediction is wrong, your Theory is wrong.

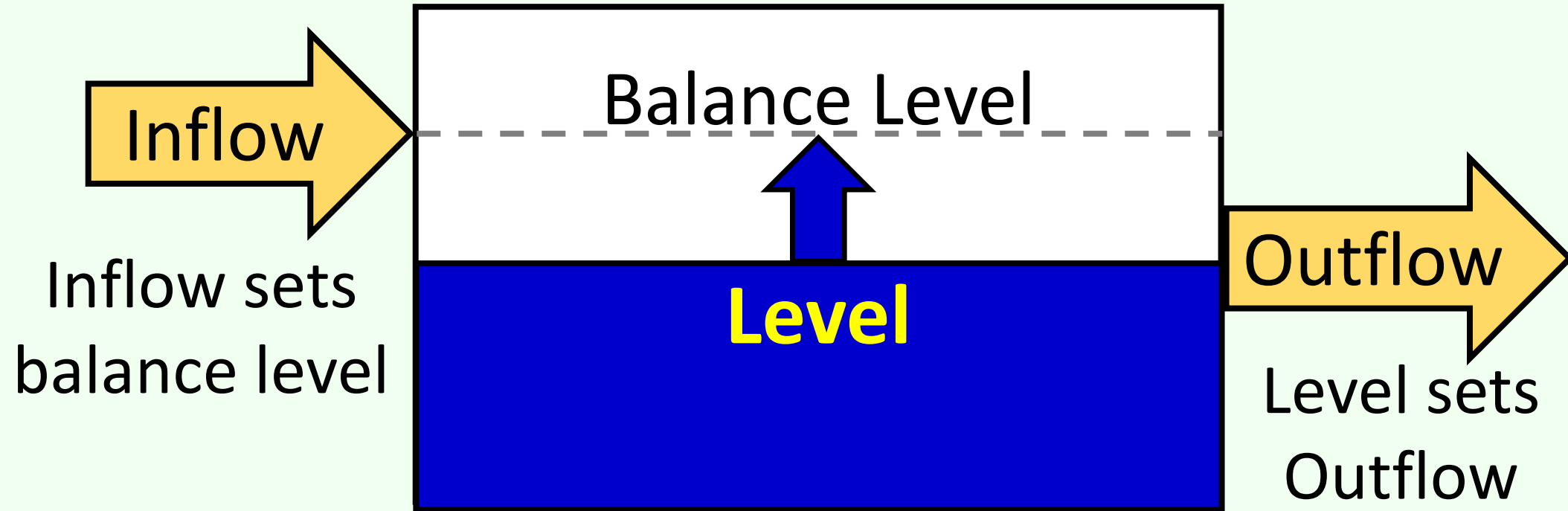
^{14}C - CO_2 data show constant half-life



Half-life (T_h)
= 10 years

Residence
Time (T_e)
= 14.4 years

Physics System for Atmospheric CO2



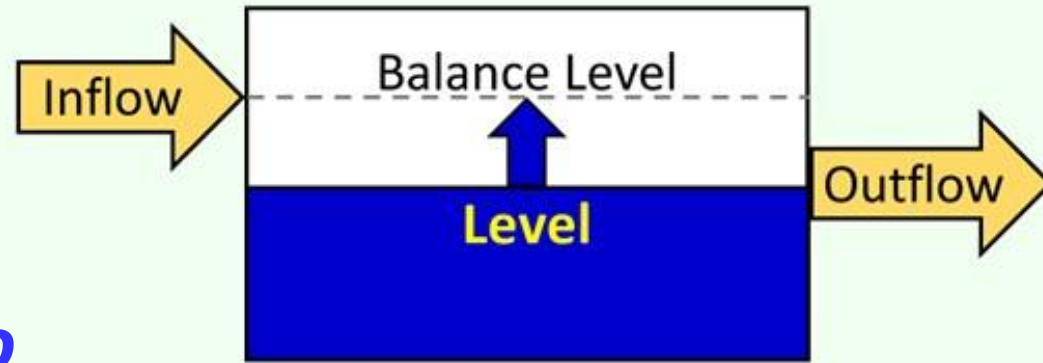
Inflow and Outflow
include effects of
external processes

Applies to all
definitions of CO2

Atmospheric CO₂ is like water in a lake

Human and natural CO₂ flow through the atmosphere like water flows through a lake.

1. Inflow sets a balance level.



2. The level goes to its balance level, where outflow equals inflow.

3. At the balance level, continued constant inflow will not change the level.

Physics theory: Outflow = Level / Te

$$dL/dt = \text{Inflow} - \text{Outflow} \quad (1)$$

$$dL/dt = \text{Inflow} - L / Te \quad (2)$$

$$dL/dt = Lb / Te - L / Te \quad (3)$$

$$L(t) = Lb + (Lo - Lb) \exp (-t / Te) \quad (4)$$

I acknowledge Herman Harde, Murry Salby, and others who contributed to this subject.

Physics theory conclusions

Balance level = Inflow * T_e :

$$L_{bh} = 4.6 \text{ (ppmv/year)} * 4 \text{ (years)} = 18 \text{ ppm} \quad (1)$$

$$L_{bn} = 98 \text{ (ppmv/year)} * 4 \text{ (years)} = 392 \text{ ppm} \quad (2)$$

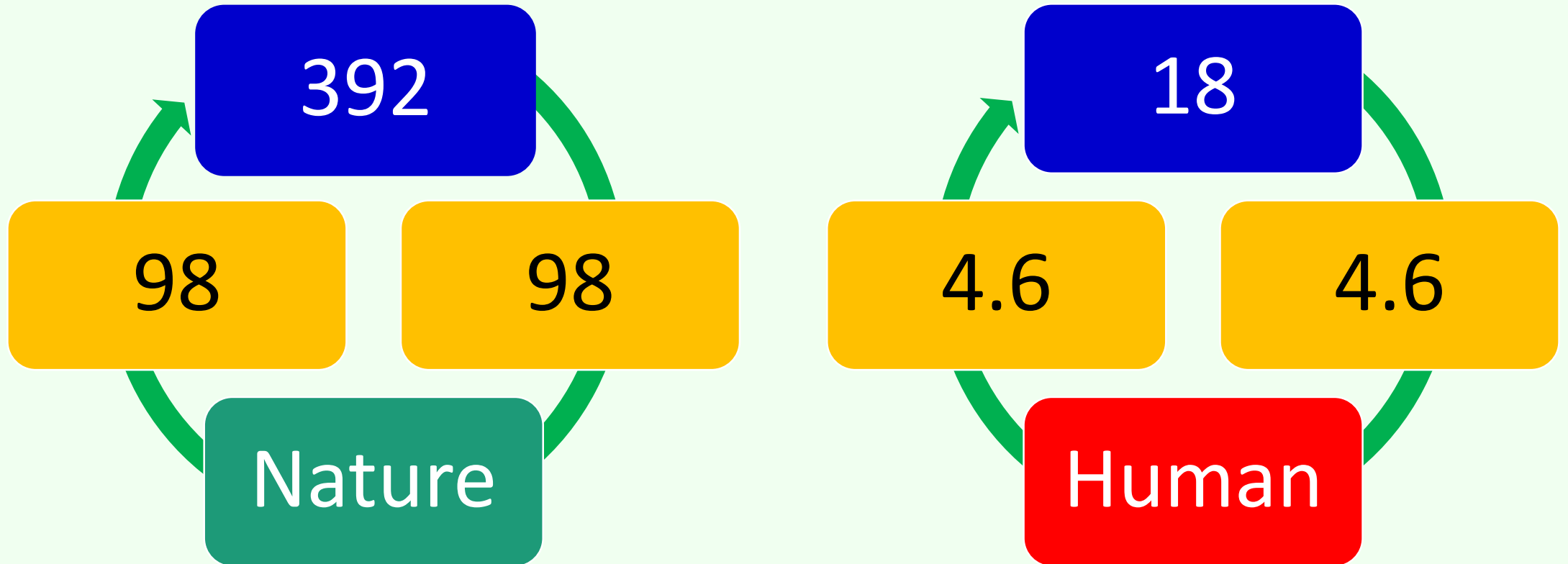
Inflow ratio sets Atmosphere ratio:

$$L_{bh} / L_{bn} = 4.6/98 = 18/392 = 0.046 \quad (3)$$

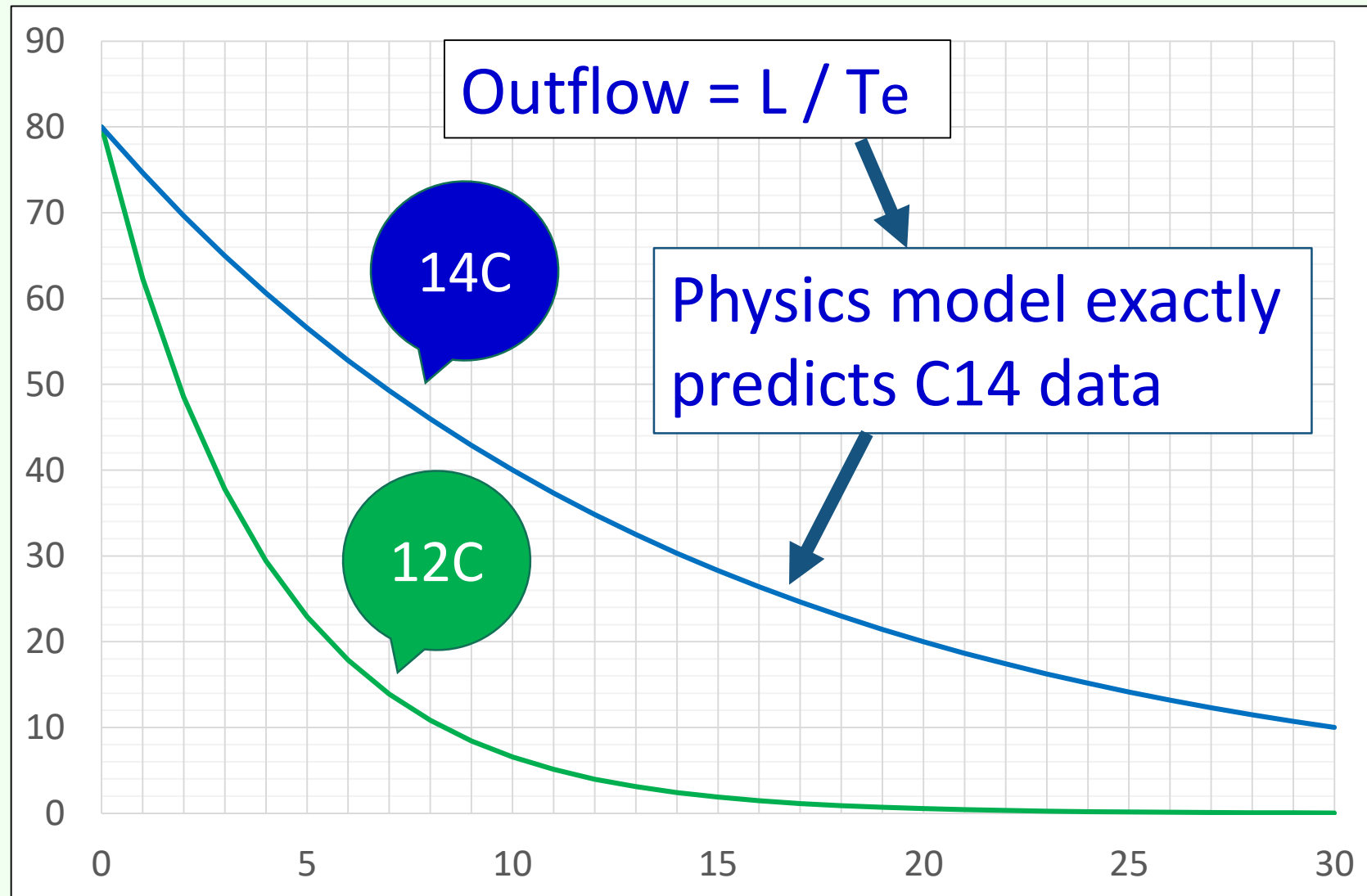
Surface temperature sets L_{bn} (Salby):

$$L_{bn} = 3.5 \text{ (ppmv/year K)} * T_s \text{ (K)} * T_e \quad (4)$$

Natural and human CO2 set balance levels



Physics model exactly predicts 14C data



Critical
point:
Physics
model can
restart at
any point
and
continue
the same
line

Physics Model Summary

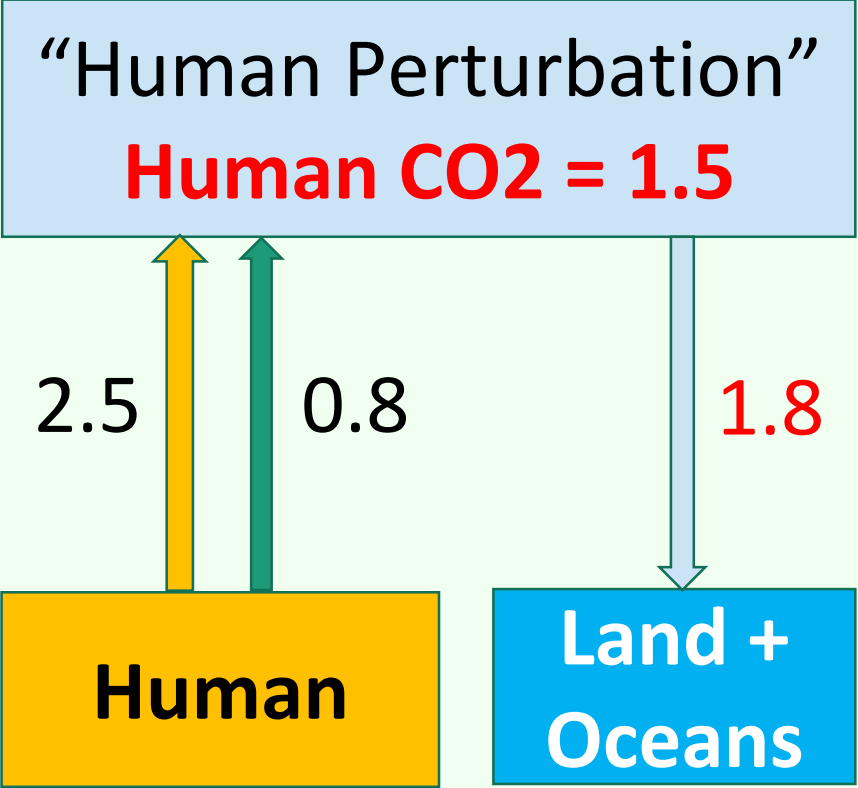
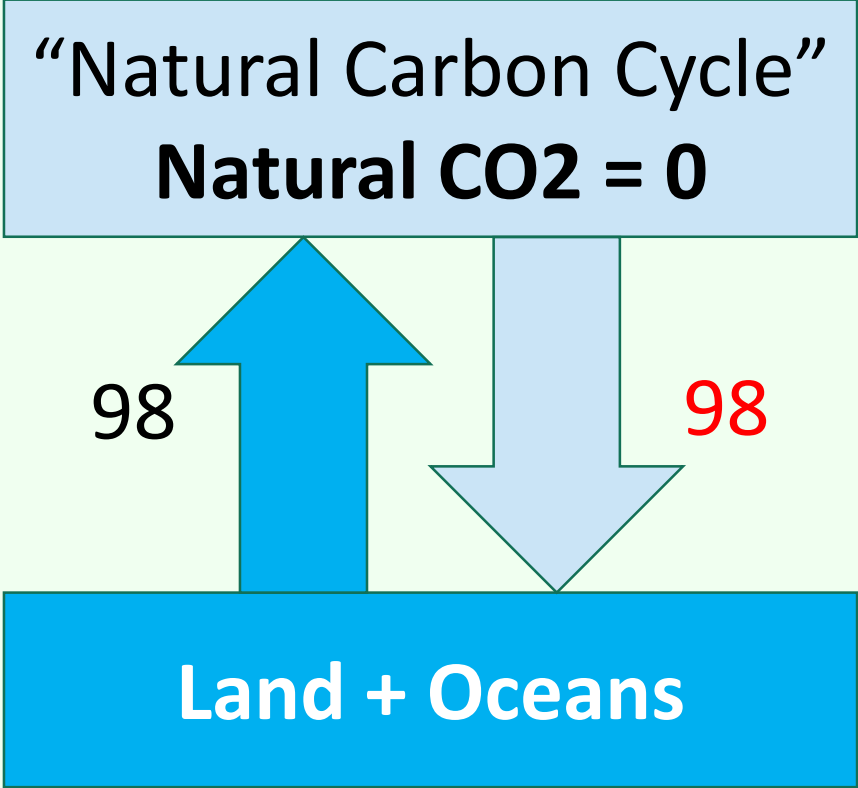
**One simple idea:
Outflow = L / T_e**

**Exactly computes
14C-CO2 data**

**Natural CO2 adds
392 ppm**

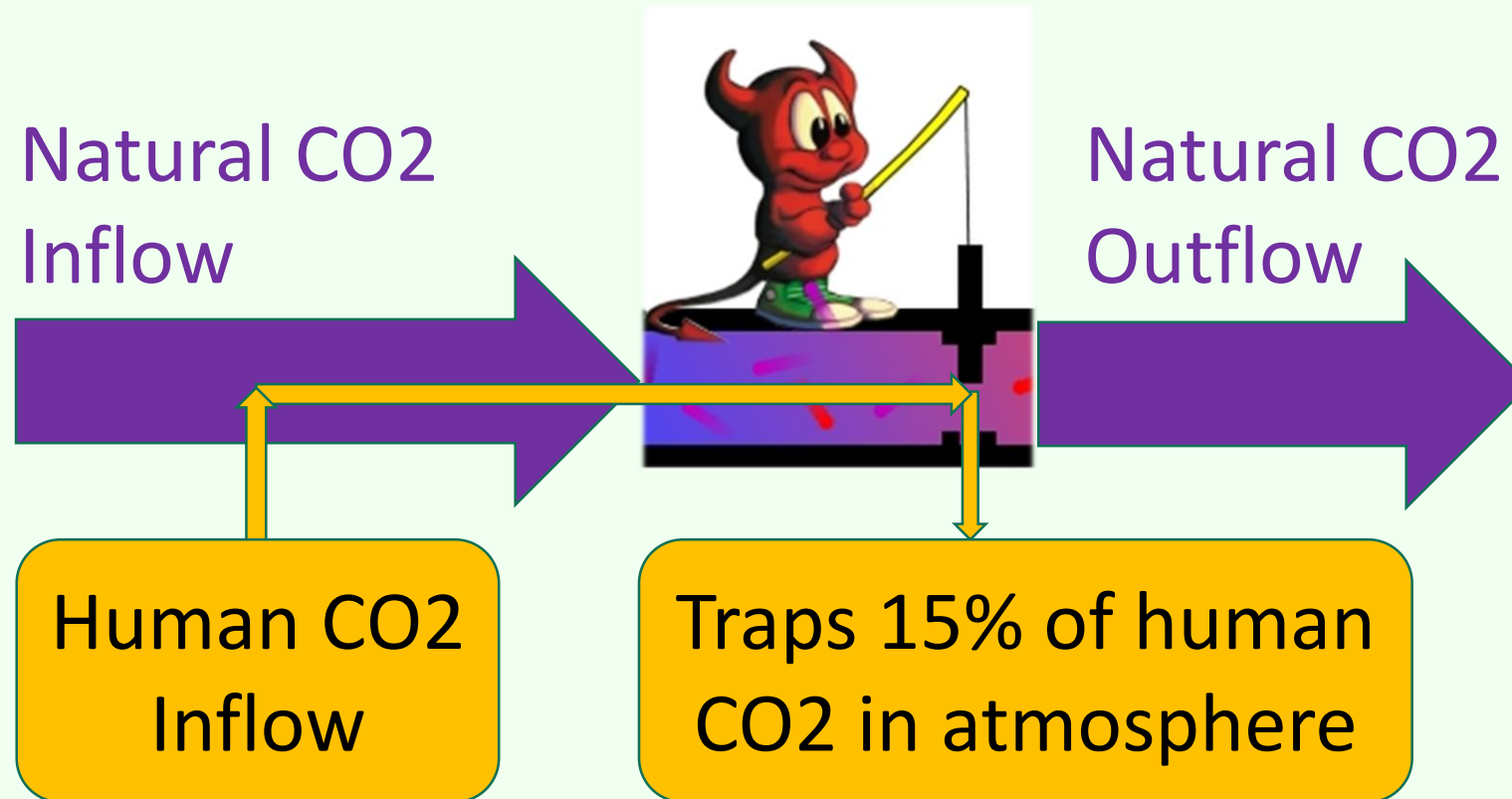
**Human CO2 adds
only 18 ppm**

UN theory **assumes** nature good, **human** bad



UN theory treats natural and human CO2 differently

UN uses demon to trap human CO2 which violates Equivalence Principle*



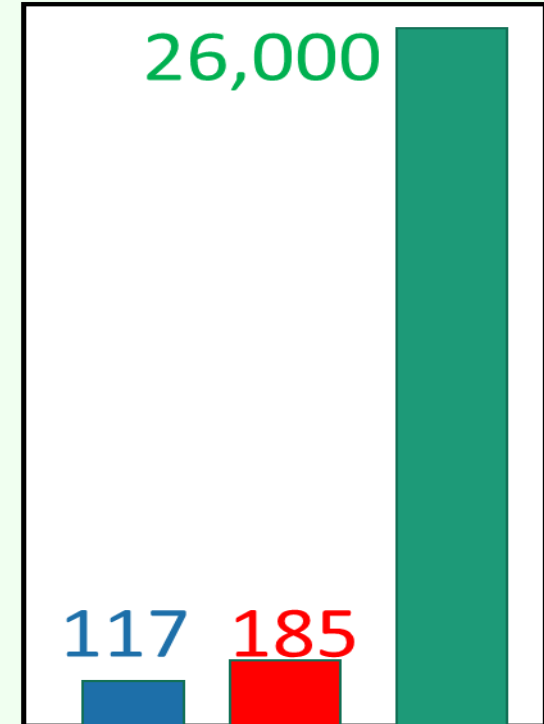
*Equivalence Principle says if data can't tell the difference between two things, then they are identical

UN core argument fails logic

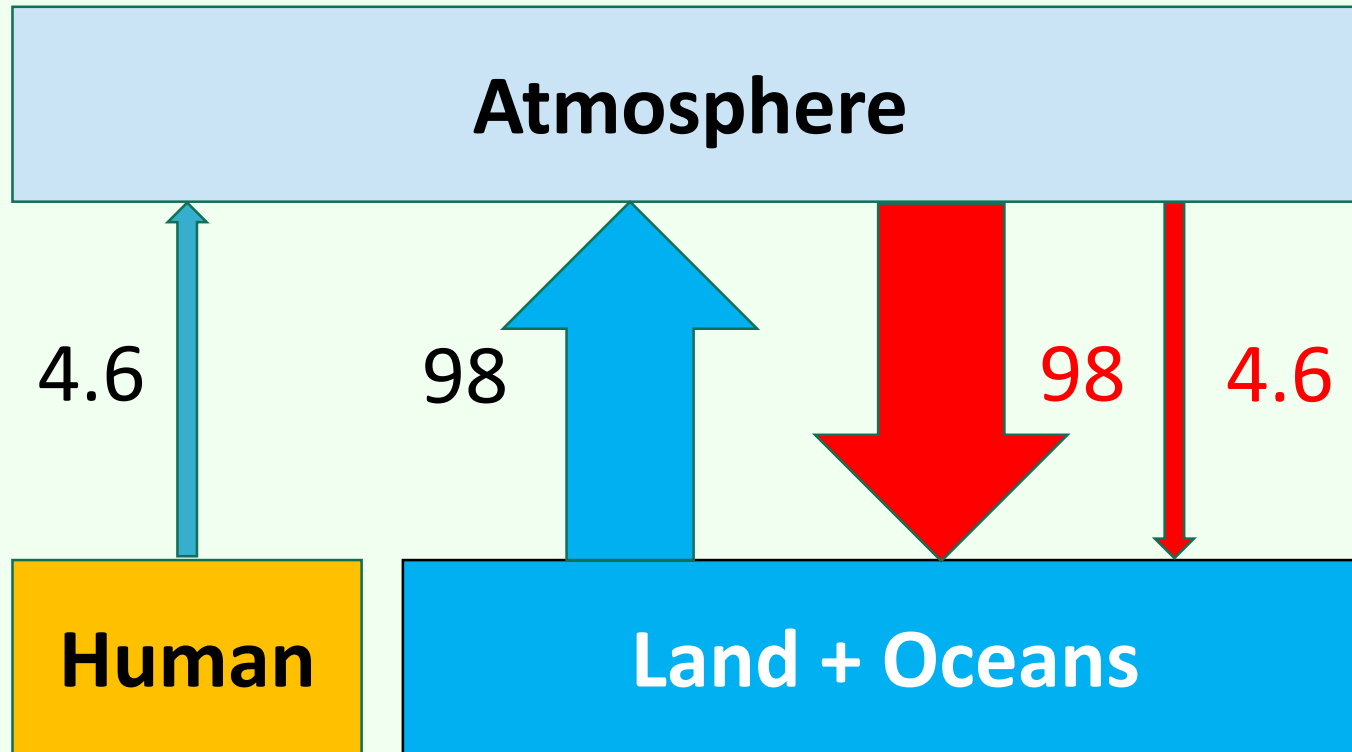
UN says, from 1750 to 2013:

1. Human CO2 emissions totaled 185
2. Atmospheric CO2 increased 117
3. *So, human CO2 caused ALL CO2 increase above 280, the level in 1750*

UN did not tell you natural CO2 emissions totaled 26,000.
So UN logic fails.

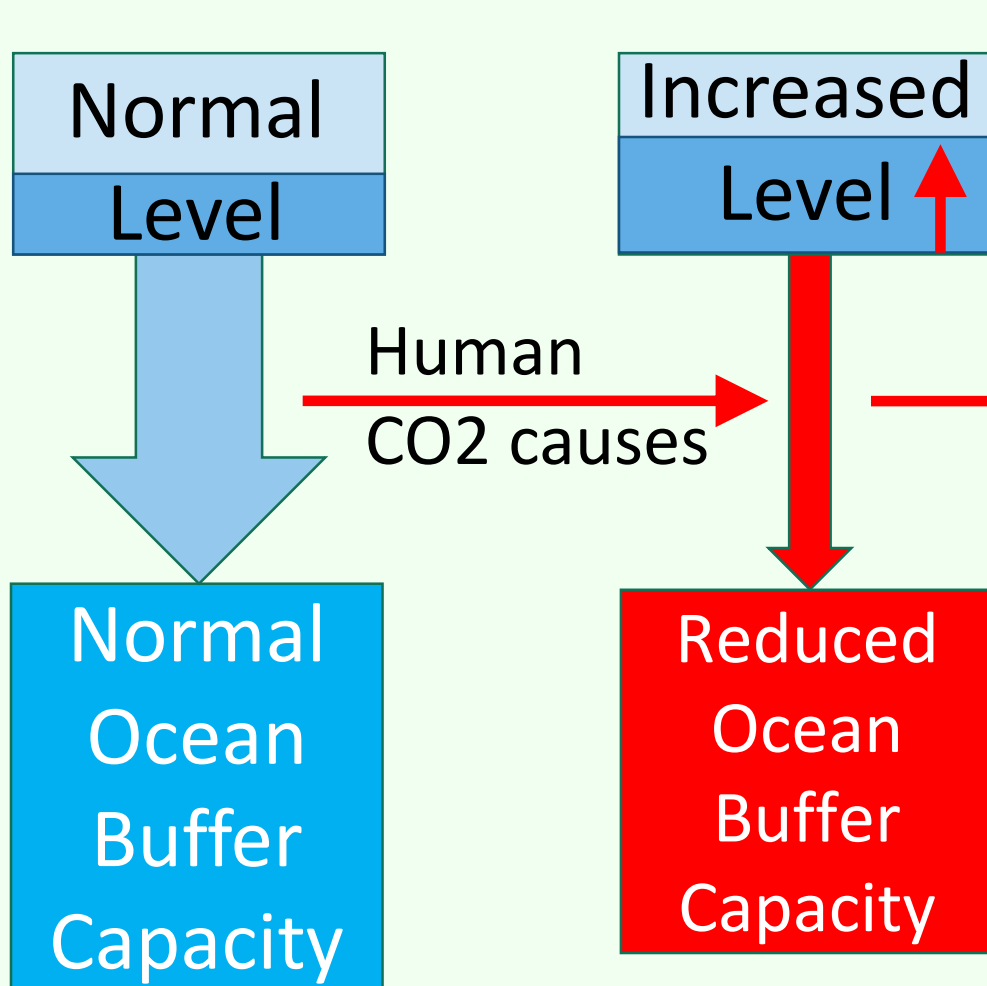


UN claims, since nature absorbs human CO₂, it can't increase natural CO₂



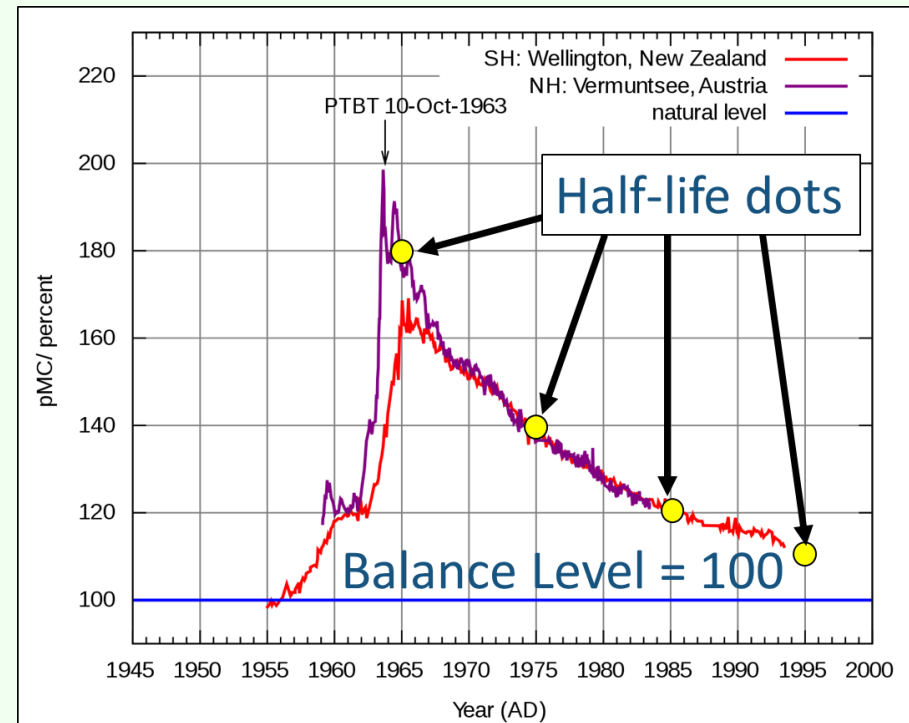
But human outflow of 4.6 cannot restrict nature's inflow to 98

UN claims **human** CO2 reduces “buffer capacity of carbonate system”



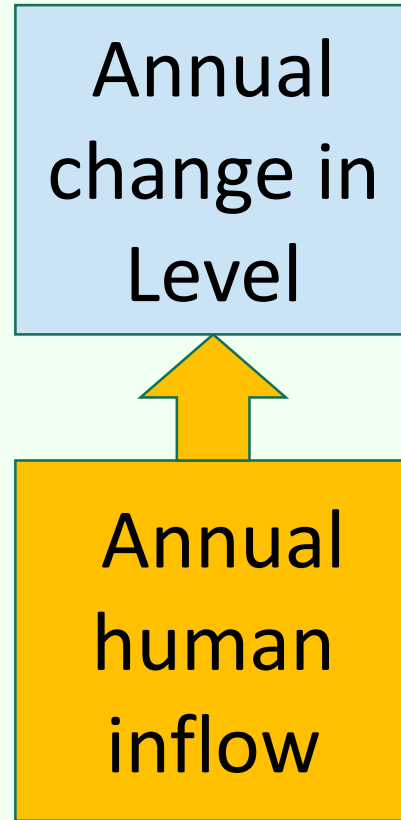
$Te = Level / Outflow$ ↑

But ^{14}C data show constant Te



UN theory fails correlation test

UN claims
annual human
inflow causes
annual change
in CO2 level

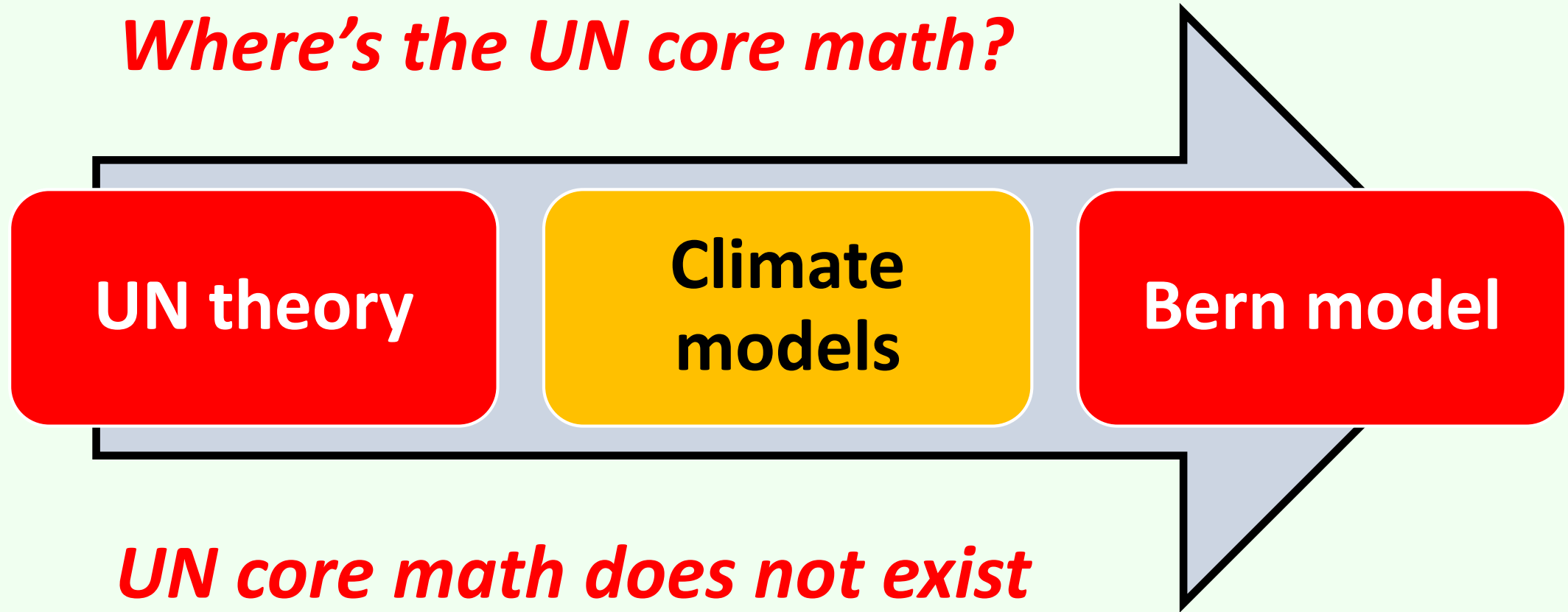


Munshi (2017)
statistics show
correlation of
annual human
inflow with CO2
level is ZERO.

So, no cause-effect

Bern model reveals math for UN theory

Where's the UN core math?



UN core math does not exist

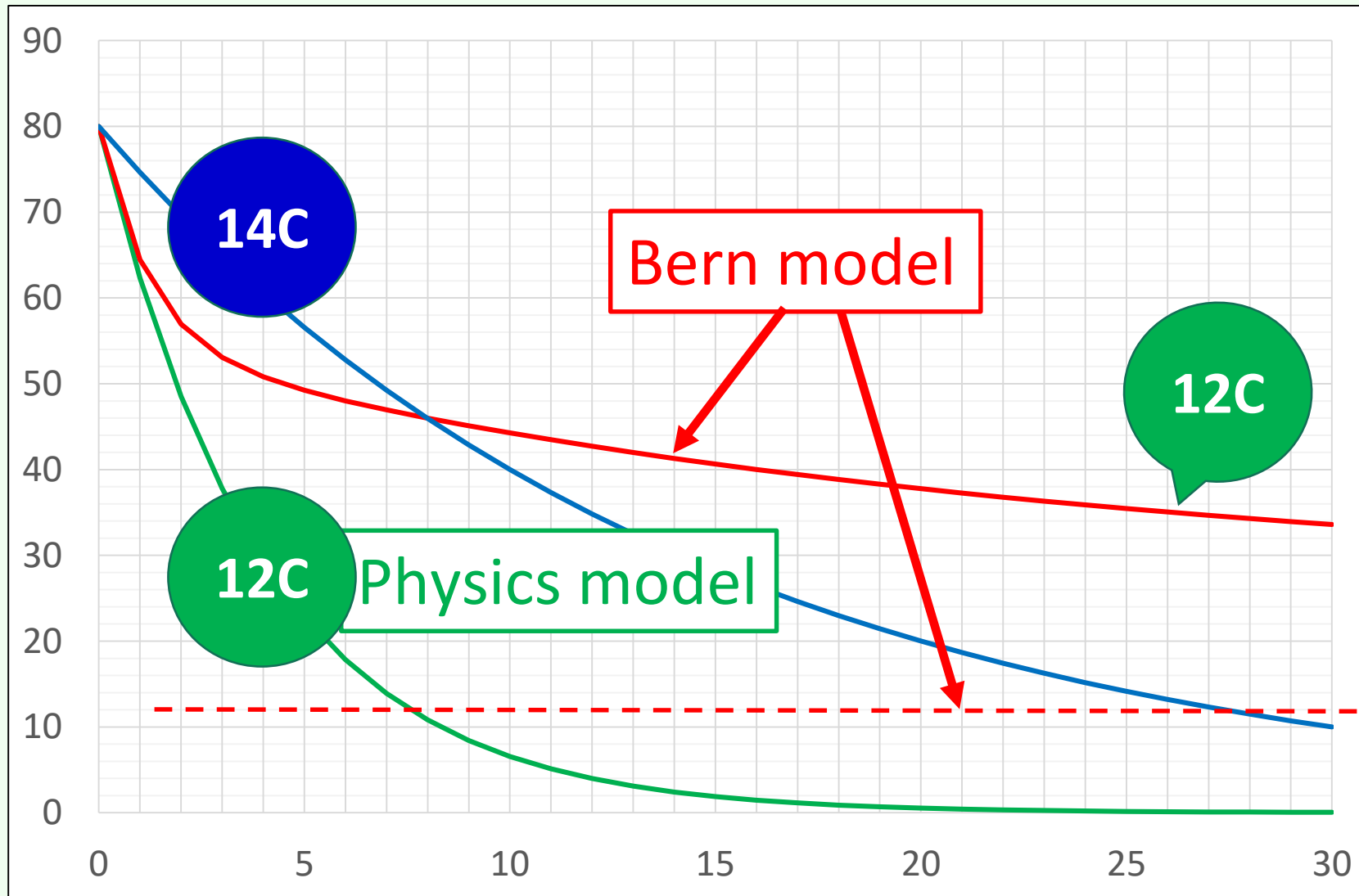
Bern model shows UN climate models trap 15% of **human** CO2

$$L(t) = L_0 \left[\begin{aligned} &+ 0.150 \\ &+ 0.252 \exp(-t / 173) \\ &+ 0.279 \exp(-t / 18.5) \\ &+ 0.319 \exp(-t / 1.19) \end{aligned} \right]$$

For natural inflow, the Bern model predicts:

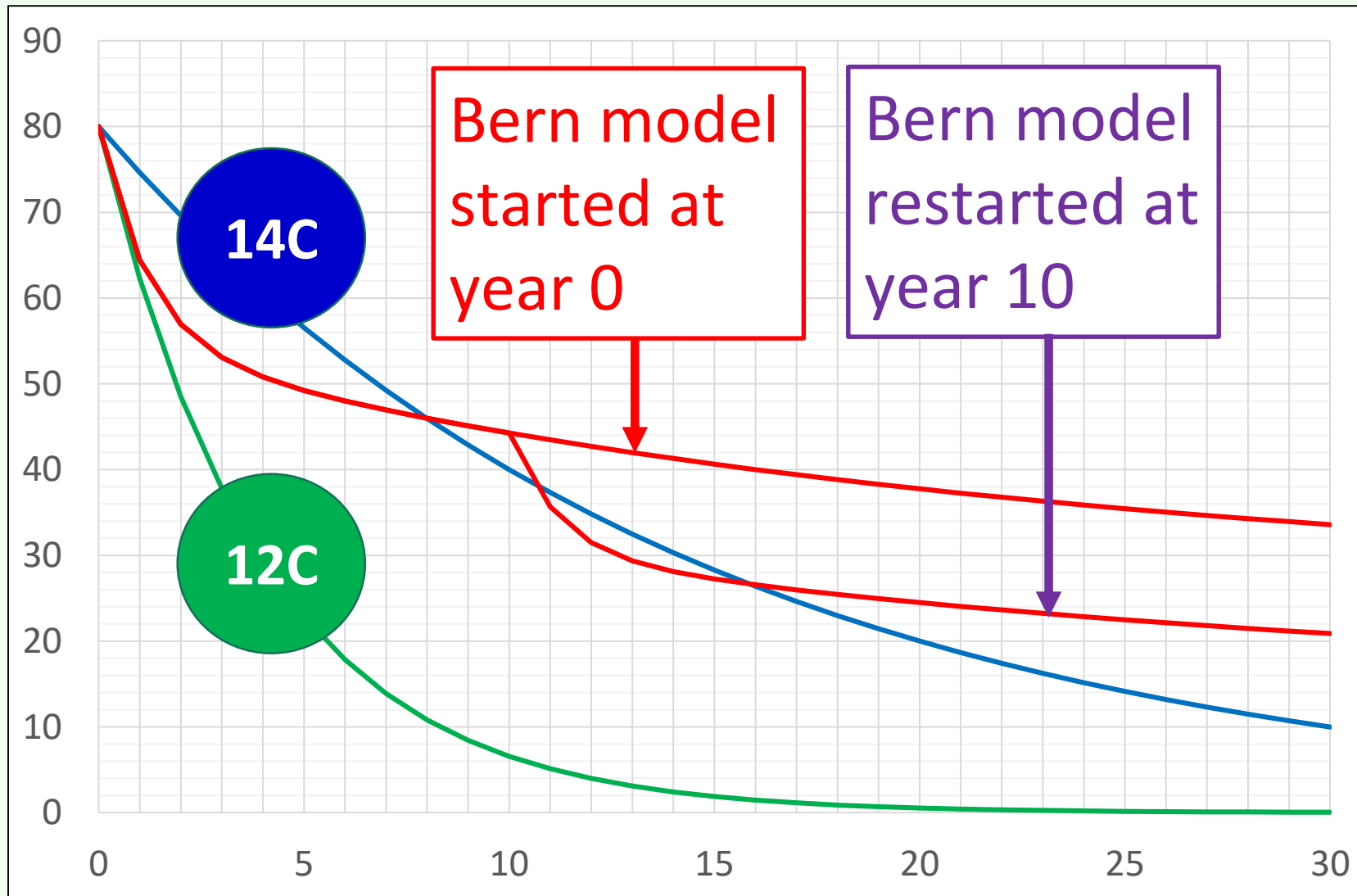
$$0.15 * 100 \text{ ppm/year} * 1000 \text{ years} = 15,000 \text{ ppm}$$

Bern model can't simulate 14C data



Bern
crosses
14C line.
So, UN
theory is
wrong!

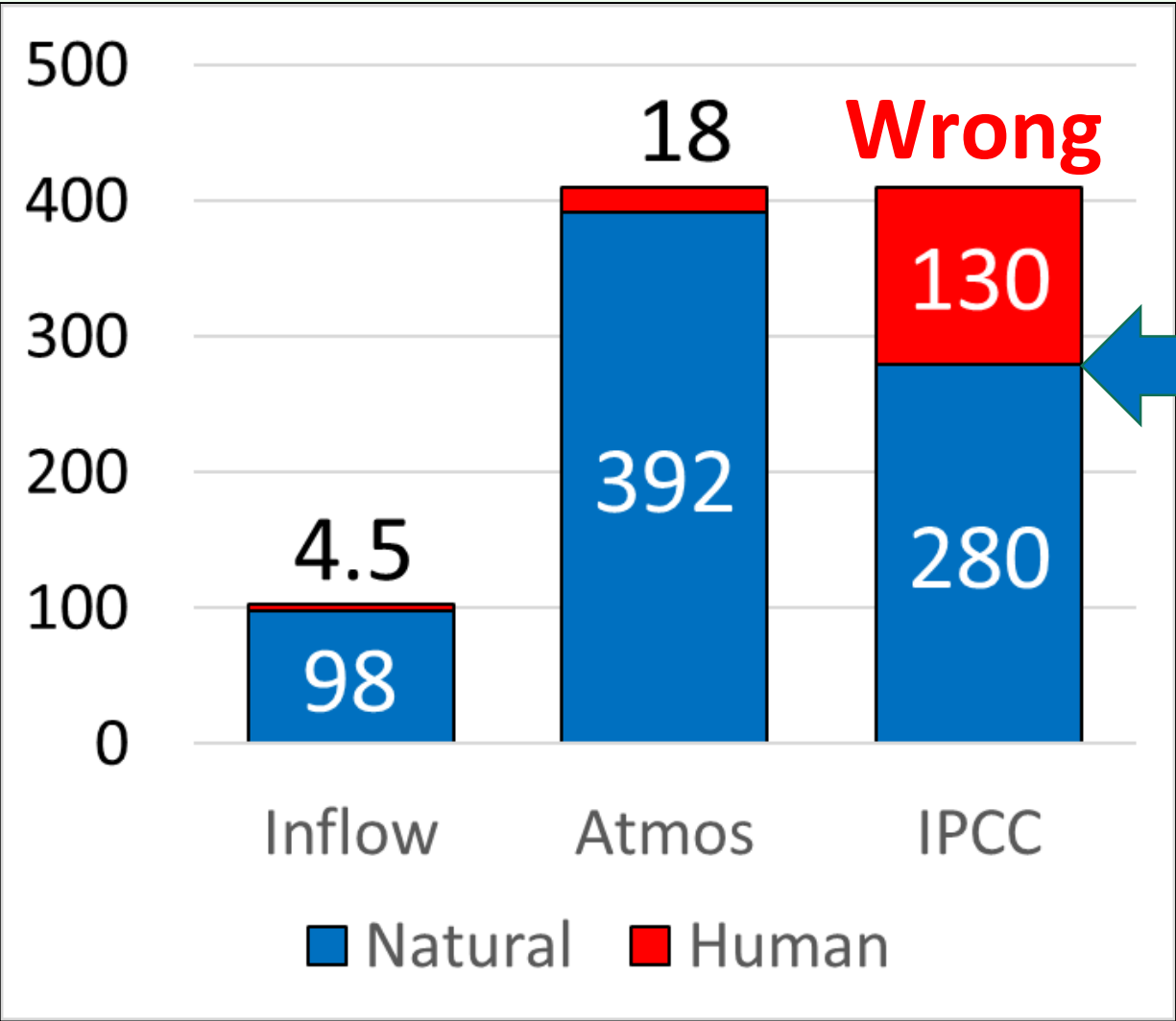
Bern model depends on history



Bern model can't match its own data on restart.

So, UN theory is wrong.

Physics theory is right - UN theory is wrong



UN theory can't explain how natural CO2 stays at 280, while human CO2 adds 130.

Conclusions

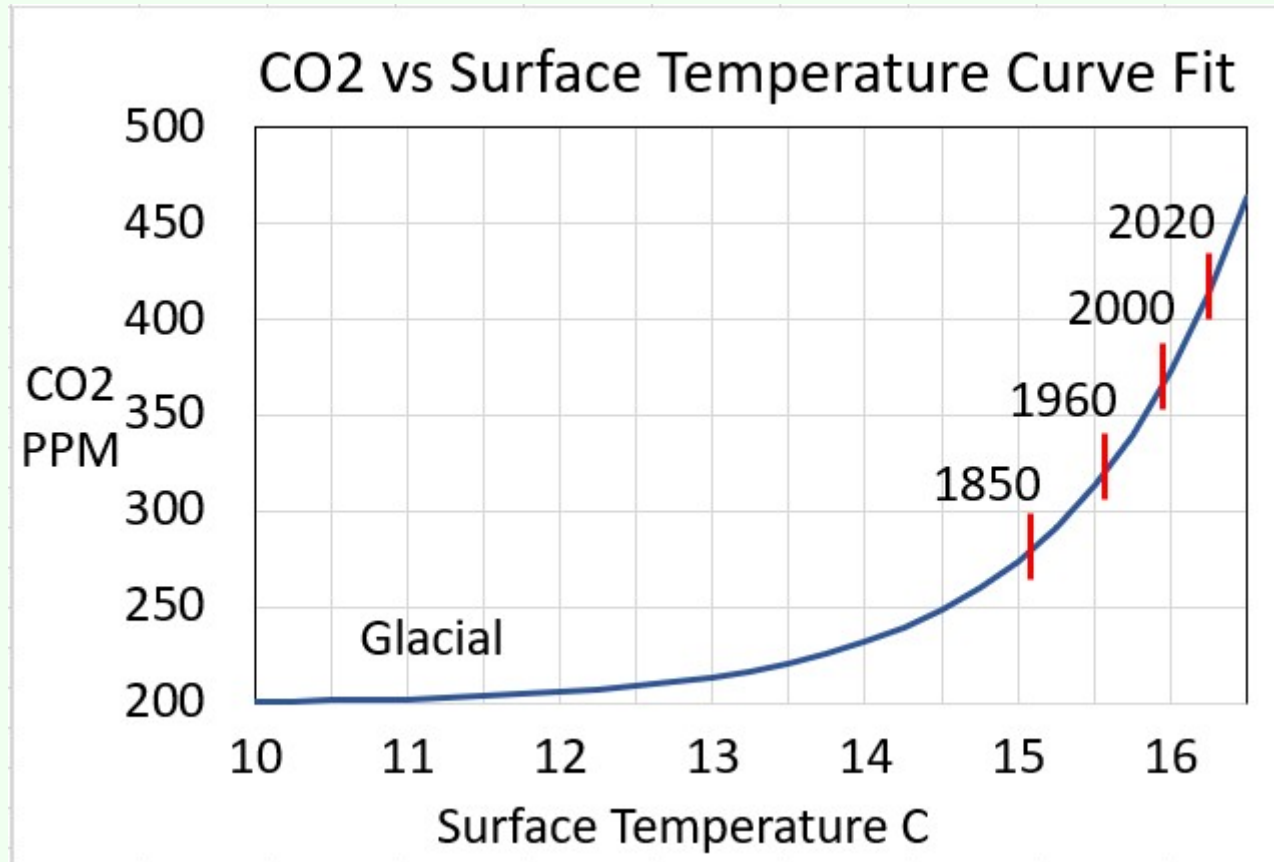
**Natural CO2 adds
392 ppm**

**Human CO2 adds
only 18 ppm**

**Nature controls the
rise in CO2**

**Human CO2 does
not change climate**

Long-term CO2 balance level vs Temperature



Harde (2017) shows historical CO2 balance levels vs surface temperature.

Inflow and Outflow depend on surface temperature.

Key Reference Links

Harde, H., 2017a: Scrutinizing the carbon cycle and CO₂ residence time in the atmosphere. Global and Planetary Change. 152, 19-26. <http://www.sciencedirect.com/science/article/pii/S0921818116304787>
<https://edberry.com/SiteDocs/PDF/Climate/HardeHermann17-March6-CarbonCycle-ResidenceTime.pdf>.

Harde, H., 2017b: Reply to Comment on “Scrutinizing the carbon cycle and CO₂ residence time in the atmosphere” by P. Köhler, J. Hauck, C. Völker, D. Wolf-Gladrow, M. Butzin, J. B. Halpern, K. Rice, R. Zeebe. https://edberry.com/SiteDocs/PDF/Climate/Reply_2017-06-27_F.pdf. 2017b.

Harde, H., 2017c: Reply to Reviewer Reports. <https://edberry.com/SiteDocs/PDF/Climate/Reply-ReviewReport-Harde.pdf>. 2017c.
<https://drive.google.com/file/d/1jgt2Fj1zSSs8yBVdEgukSItG0LGOD0IC/view>

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