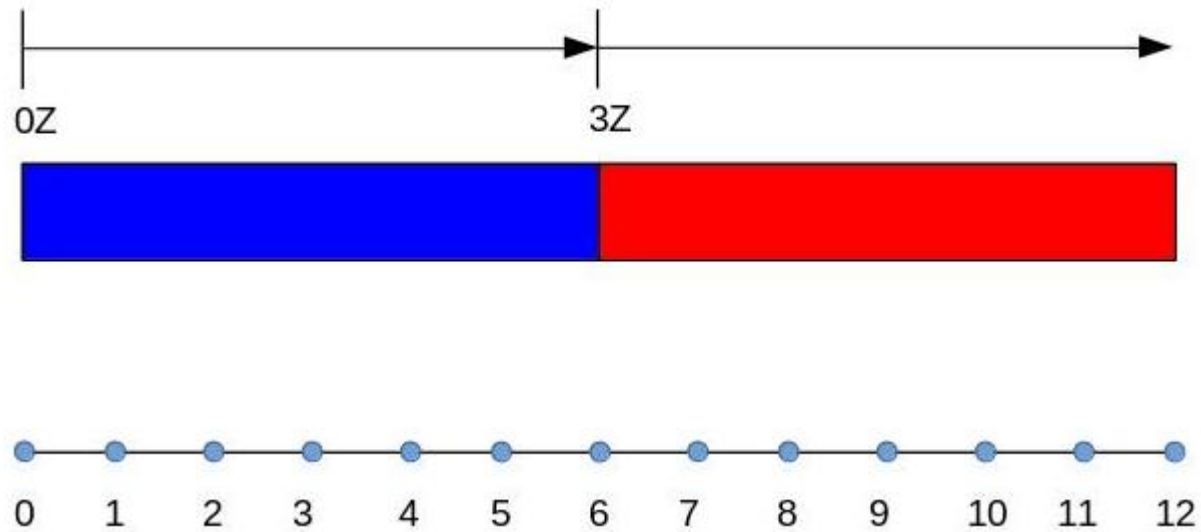




# **Cos(zenith\_angle) and data model advance**



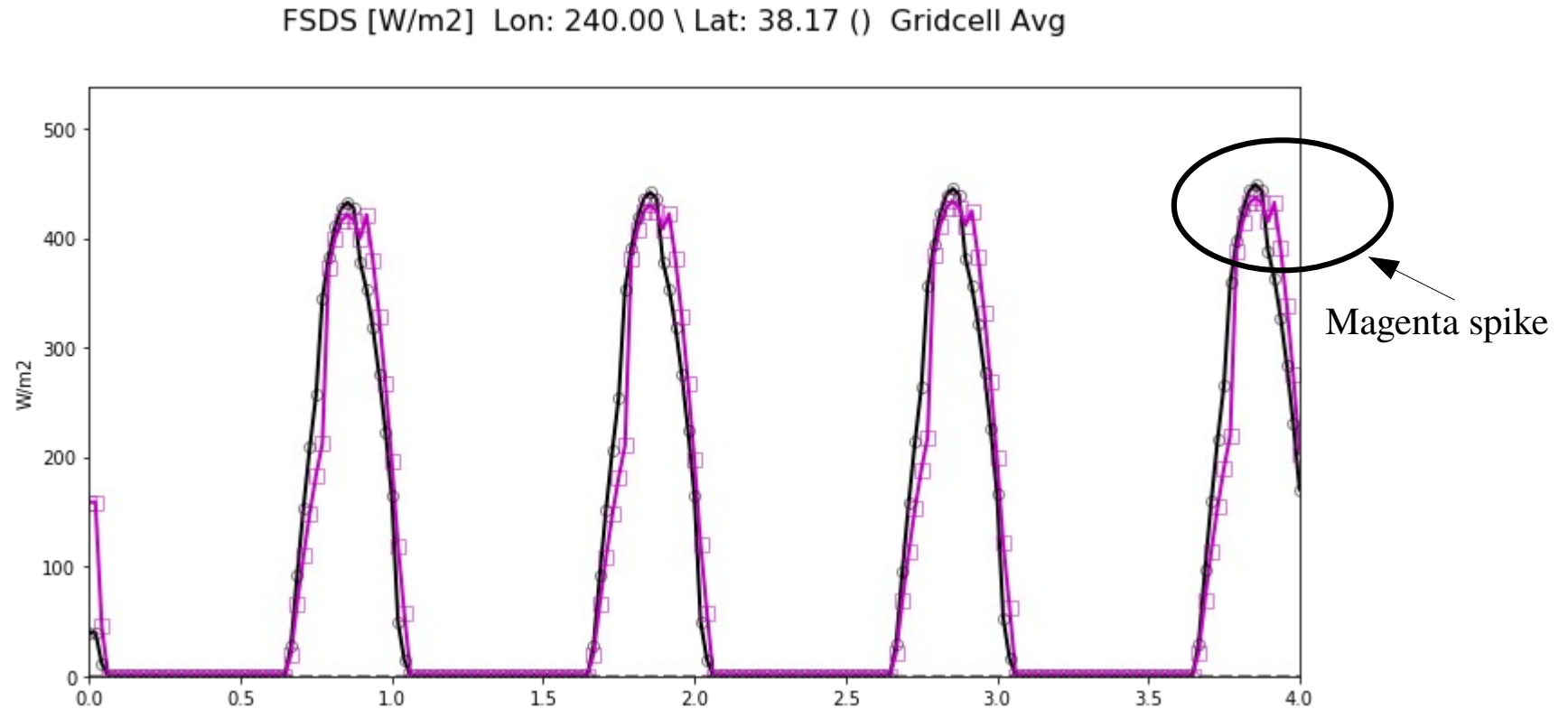
# When to advance datm with respect to model timesteps



Timesteps 0-5  
span first 3 hours

Timesteps 6-11 span  
second 3 hours

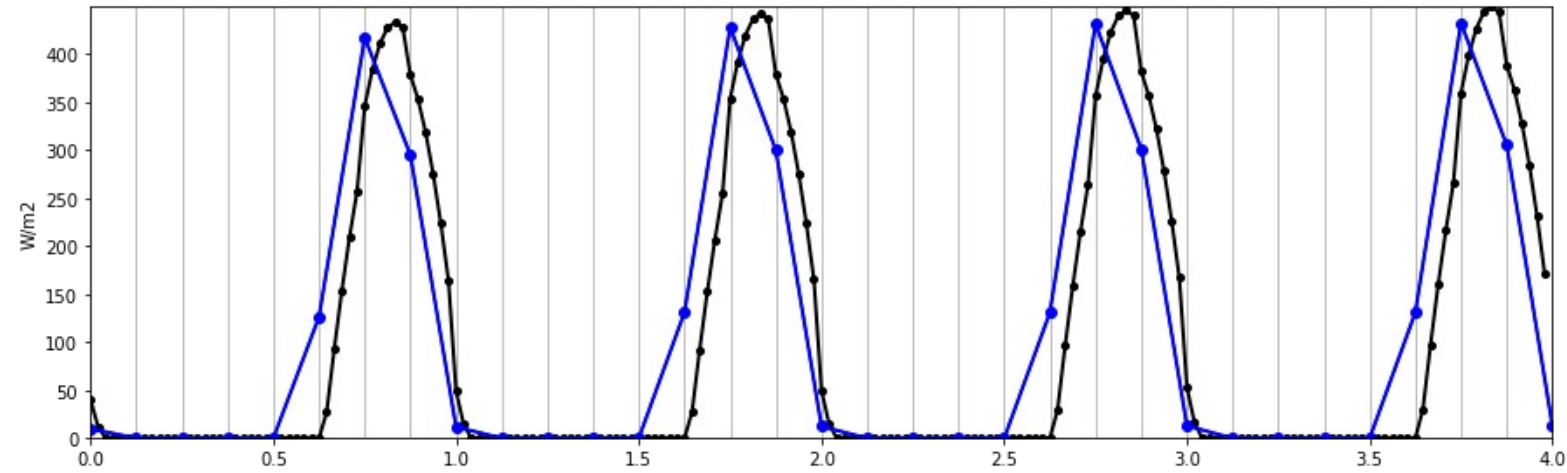
# Current behavior advances 1 time step late; to compensate, coszen tagv was advanced too early



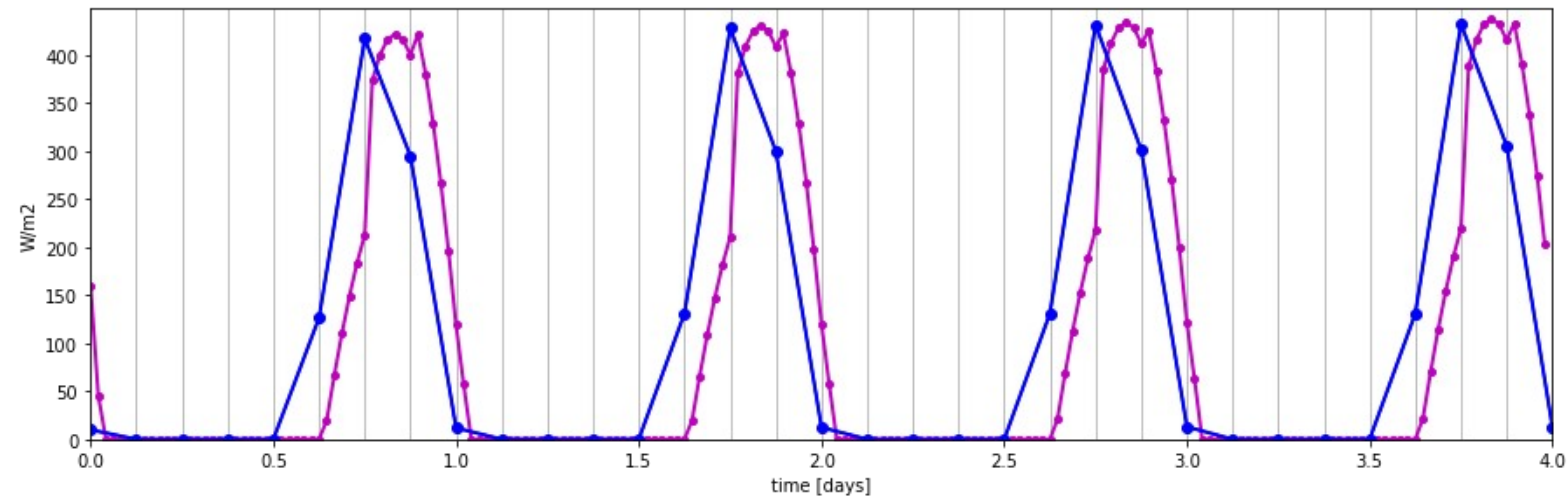
Magenta: control - often shows spikes at forcing transitions

Black: corrected, smoother behavior

FSDS [W/m2] Lon: 240.00 \ Lat: 38.17 () Col 1



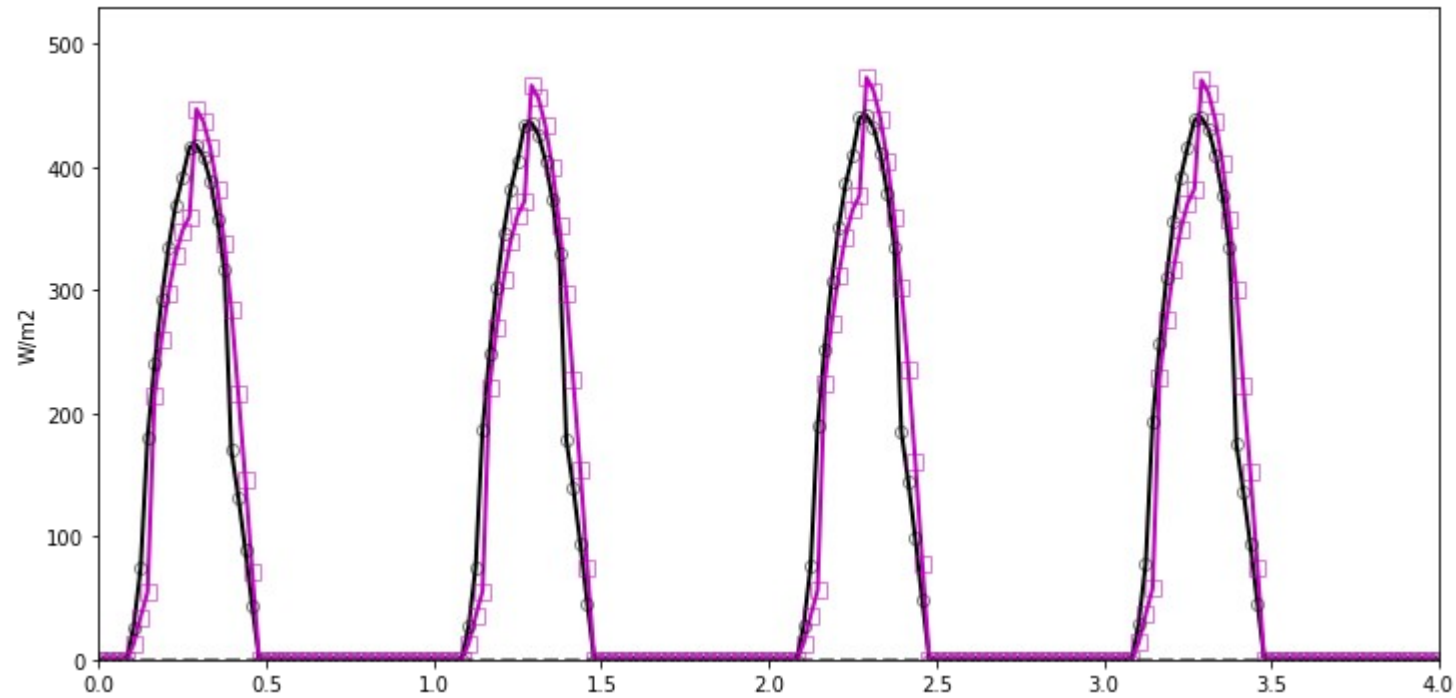
Black: new spline aligns with forcing (blue)



Magenta: end of spline overlaps time when forcing advances

# A second example location

FSDS [W/m<sup>2</sup>] Lon: 85.00 \ Lat: 40.05 ( ) Gridcell Avg



Magenta: control

Black: corrected

FSDS [W/m<sup>2</sup>] Lon: 85.00 \ Lat: 40.05 ( ) Col 1

