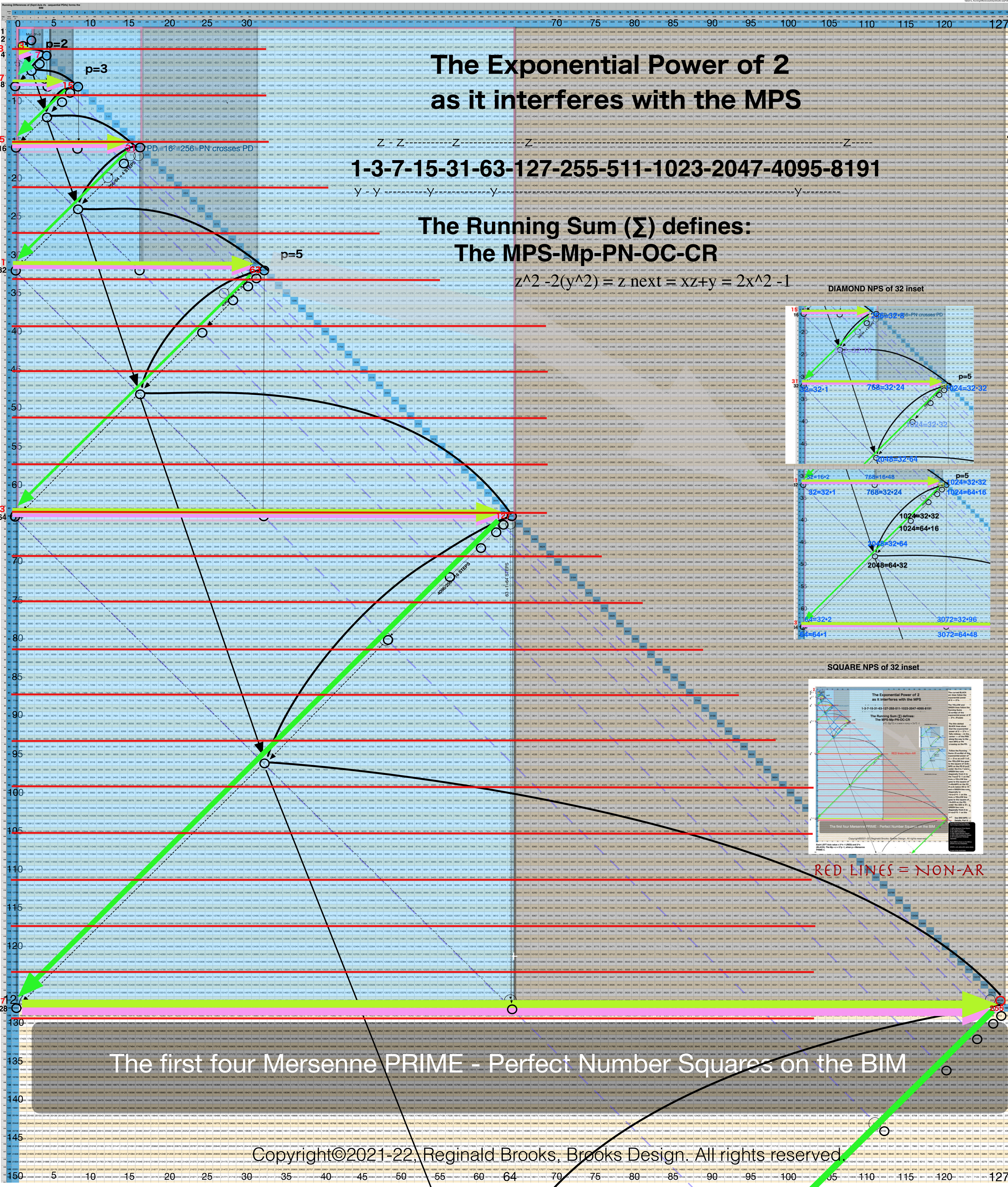

The curved BLACK arc lines follow the exponential power of 2 --- 2^n.

The YELLOW and GREEN lines follow the Running Sums (Σ=z=Mp) of the exponential power of 2 --- 2^n. (Purple)

The thin dotted BLACK lines show that the exponential power of 2 --- 2^n --- falls midway ---in the center --- of the PNS along the way to the next MPS or PN crossing on the PD.

Follow the Running Sums (Σ=z=Mp) of the exponential power of 2 --- 2^n=x as z=2^2-1=3 the YELLOW line goes to the square of 3=9= MPS on the PD @ p=2; under the 9 is 7 and a GREEN line runs diagonally from it to the 7=z=2^3 -1 on the Axis; a YELLOW line goes to the square of 7=49=MPS on the PD @ p=3; below 49 is 15 and a GREEN line runs diagonally to 15=z=2^4 -1 on the Axis; a YELLOW line goes to the square of 15=225 on the PD; under the 225 is 31; a GREEN line runs diagonally from it to 31=z=2^5 -1 on the

See BIM-MPS: Details, Part II.

Every Mersenne Prime Square has 6 unique embedded AREAS:

1. MPS: Mersenne Prime Square
2. PN: Perfect Number
3. OC: ODD Complement
4. PNS: Perfect Number Square
5. OCS: ODD Complement Square
6. CR: Complement Rectangle (repeated)

Each AREA is shown on the BIM as STEPS from the DIAGONAL.

STEPS = x/4, while x/2•∑ gives values.

∑=sum of the coordinates.

Each LEFT Axis value = 2^n -1 (RED) and 2^n (BLACK). The Mp = z = 2^p -1, when p = Mersenne PRIME n.

256

32768

255