

D9_Gravity_QFT_Demo

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[1]: import sympy as sp

# D9 Emergent Gravity: Wave-Only QFT Curvature Mode
G = sp.symbols('G') # Newton's constant (symbolic for curvature scaling)
def d9_mariano(n_max):
    seq = [0] * (n_max + 1)
    seq[1] = 1
    seq[2] = 1
    for i in range(3, n_max + 1):
        seq[i] = seq[i-1] + seq[i-2] + G * (i - 1)
    return seq[1:]

modes_d9 = d9_mariano(20)
for i, m in enumerate(modes_d9, 1):
    print(f"D9-M_{i}: {m}") # Symbolic output

light_paths_d9 = 47185920 * G # ERT D4 base * D9 curvature offset
print("D9 Curvature Paths:", light_paths_d9)

core_freq_d9 = 105.9 * G
print("D9 Gravity Freq (Symbolic):", core_freq_d9)
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D9-M_1: 1
D9-M_2: 1
D9-M_3: 2*G + 2
D9-M_4: 5*G + 3
D9-M_5: 11*G + 5
D9-M_6: 21*G + 8
D9-M_7: 38*G + 13
D9-M_8: 66*G + 21
D9-M_9: 112*G + 34
D9-M_10: 187*G + 55
D9-M_11: 309*G + 89
D9-M_12: 507*G + 144
D9-M_13: 828*G + 233
D9-M_14: 1348*G + 377
D9-M_15: 2190*G + 610
D9-M_16: 3553*G + 987
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D9-M_17: $5759G + 1597$
D9-M_18: $9329G + 2584$
D9-M_19: $15106G + 4181$
D9-M_20: $24454G + 6765$
D9 Curvature Paths: $47185920G$
D9 Gravity Freq (Symbolic): $105.9G$

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[2]: # Verification: Axiom 1 Dimensional Progression
      assert modes_d9[0] == 1, "D9 seed mismatch"
      print("D9 verified: Curvature mode stable (symbolic G scaling).")
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