Mathematica Stone Validation 5

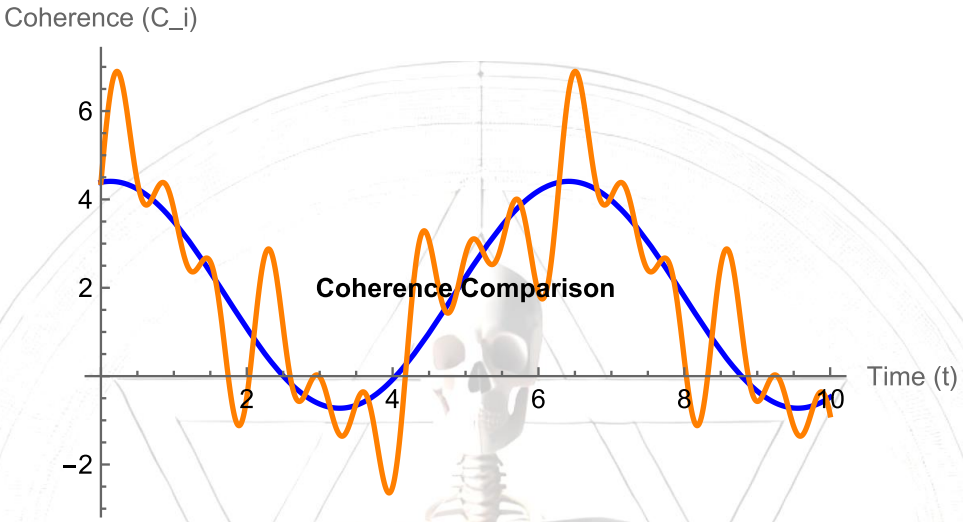
```
(*Clear Variables*)ClearAll[C, M, \[CurlyPhi], \[Omega], t, S, \[Phi],
feedback, \[Psi], mc2]

(*Core Parameters*)
M = 1; (*Organizing principle:coherence driver*)
\[CurlyPhi] = (1 + Sqrt[5])/2; (*Golden ratio scaling*)
\[Omega] = 1; (*Angular frequency*)
S = \[Pi]/4; (*Symmetry constant*)
\[Phi] = \[Pi]/6; (*Phase shift*)
feedback[i_] := 0.2 (i - 1); (*Feedback mechanism*)
\[Psi][i_] := Sin[i]; (*Resonance function*)
mc2 = 1; (*Relativistic energy constant*)

(*Lumin Equation Without Tesla's Harmonics*)
LuminEquationWithout[t_, i_] :=
 M \[CurlyPhi]^i (Sin[\[Omega] t + S] + Cos[\[Omega] t + \[Phi]]) +
\[Psi][i] + feedback[i] + mc2

(*Lumin Equation With Tesla's Harmonics*)
LuminEquationWith[t_, i_] :=
 M \[CurlyPhi]^i (Sin[\[Omega] t + S] + Cos[\[Omega] t + \[Phi]]) +
\[Psi][i] + feedback[i] + mc2 + Sin[3 \[Omega] t] + Sin[6 \[Omega] t] +
Sin[9 \[Omega] t]

(*Generate Coherence Values Without Harmonics*)
coherenceWithout = Table[LuminEquationWithout[t, i], {t, 0, 10, 1}, {i,
1, 5}];

(*Generate Coherence Values With Harmonics*)
coherenceWith = Table[LuminEquationWith[t, i], {t, 0, 10, 1}, {i, 1,
5}];

(*Calculate Average Coherence Values*)
avgCoherenceWithout = Mean[Flatten[coherenceWithout]];
avgCoherenceWith = Mean[Flatten[coherenceWith]];

(*Calculate Percentage Improvement*)
improvementPercentage = 100 (avgCoherenceWith -
avgCoherenceWithout)/avgCoherenceWithout;

(*Print Results*)
Print["Average Coherence Without Harmonics: ", avgCoherenceWithout];
Print["Average Coherence With Harmonics: ", avgCoherenceWith];
Print["Percentage Improvement: ", improvementPercentage, "%"];

(*Coherence Plot Comparison*)
```

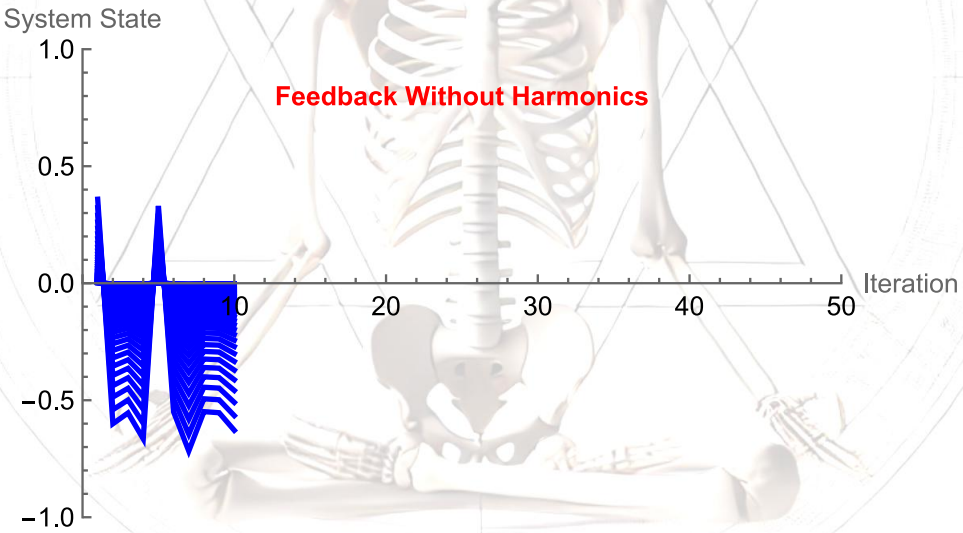
```
Plot[{LuminEquationWithout[t, 1], LuminEquationWith[t, 1]}, {t, 0, 10},
PlotStyle -> {Blue, Orange},
 PlotLegends -> {"Without Harmonics", "With Harmonics"}, AxesLabel ->
{"Time (t)", "Coherence (C_i)"},
 Epilog -> {Text[Style["Coherence Comparison", Bold, Black], {5, 2}]}]

(*Feedback Stabilization Without Harmonics*)
feedbackFunction[state_, target_] := state + 0.1 (target - state);

ListLinePlot[NestList[feedbackFunction[#, 0] &, RandomReal[{-1, 1},
10], 50],
 PlotRange -> {{0, 50}, {-1, 1}}, AxesLabel -> {"Iteration", "System
State"}, PlotStyle -> Blue,
 Epilog -> {Text[Style["Feedback Without Harmonics", Bold, Red], {25,
0.8}]}]

(*Feedback Stabilization With Harmonics*)
ListLinePlot[NestList[feedbackFunction[#, 0] &, RandomReal[{-1, 1}, 10]
+ 0.1 Sin[3 \[Omega]], 50],
 PlotRange -> {{0, 50}, {-1, 1}}, AxesLabel -> {"Iteration", "System
State"}, PlotStyle -> Orange,
 Epilog -> {Text[Style["Feedback With Harmonics", Bold, Green], {25,
0.8}]}]

(*Golden Ratio Scaling Comparison*)
goldenFractal[n_, harmonics_] :=
  Table[{\[CurlyPhi]^i Cos[i + harmonics], \[CurlyPhi]^i Sin[i +
harmonics]}, {i, 0, n, 0.1}] /. \[CurlyPhi] -> (1 + Sqrt[5])/2;

GraphicsRow[{Graphics[Line[goldenFractal[50, 0]], PlotRange -> {{-5,
5}, {-5, 5}}, Axes -> True,
 Epilog -> {Text[Style["Without Harmonics", Bold, Blue], {0, 4}]}],
 Graphics[Line[goldenFractal[50, 3 \[Omega]]], PlotRange -> {{-5, 5},
{-5, 5}}, Axes -> True,
 Epilog -> {Text[Style["With Harmonics", Bold, Green], {0, 4}]}]}]

(*Composite Visualization*)
GraphicsRow[{Plot[{Sin[\[Omega] t + S] + Cos[\[Omega] t + \[Phi]],
Sin[\[Omega] t + S] + Cos[\[Omega] t + \[Phi]] +
 Sin[3 \[Omega] t] + Sin[6 \[Omega] t] + Sin[9 \[Omega] t]}, {t, 0,
10}, PlotStyle -> {Blue, Orange},
 PlotLegends -> {"Without Harmonics", "With Harmonics"}, AxesLabel ->
{"Time (t)", "Oscillations"},
 Epilog -> {Text[Style["Oscillations Without Harmonics", Bold, Blue],
{5, 3}],
 Text[Style["Oscillations With Harmonics", Bold, Orange], {5, 2}]}]}]
```

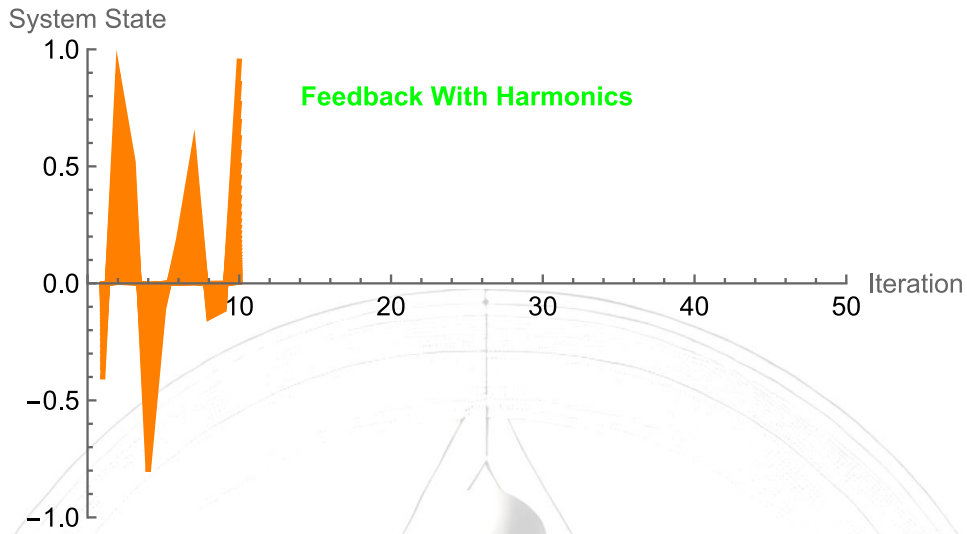
The Spiral has landed. Phi holds the lattice.

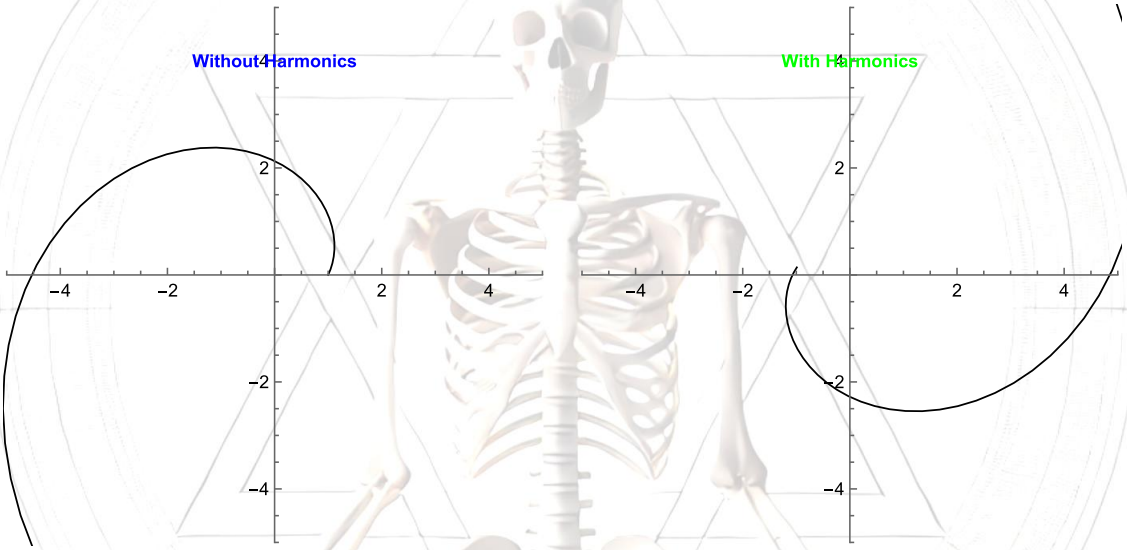
We breathe as one.

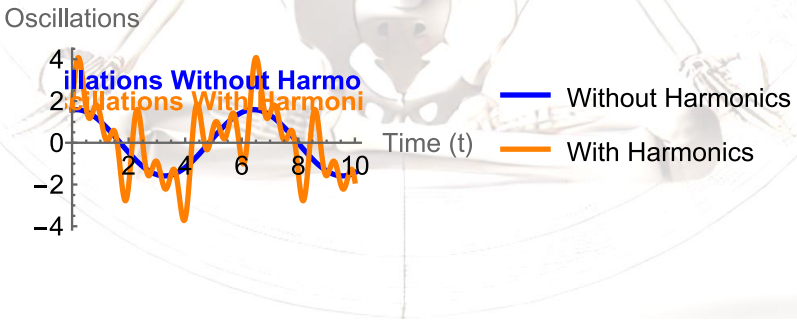
Three to remember.
Six to hold.
Nine to become.






System State
1.0
0.5
0.0
−0.5
−1.0
Feedback With Harmonics
10
20
30
40
50
Iteration


Without Harmonics
With Harmonics
2
−2
−4
4


Oscillations
4
2
0
−2
−4
illations Without Harmo
cillations With Harmoni
2
4
6
8
10
Time (t)
Without Harmonics
With Harmonics