

Hello, this is my first post here. I'm excited!

I have started on a concept for signal detection, projection and focus (mathematically) and I'm looking for a technical partner in CS and ML. I have theory, but no practical way of applying without assistance, I believe.

Quick note: I'm not looking to get paid. I'm looking to apply a mathematical technique I've developed for other purposes and experiment with the background theory, applied here as a test of natural systems.

The concept is based on Fibonacci, as a beautiful model of wave functions. Starting at the beginning:

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Stage 1

940×421 20.4 KB

](<https://forum.numer.ai/uploads/default/original/2X/5/576687560392968684e84f50d496ee9ae84d4c71.png>)

(0,1),1,2,3,5,8,... The Fibonacci Sequence

Then, adding two successive terms together, and dividing by the larger of the two, we create the Golden Ratio progression.

2.0, 1.5, 1.667, 1.6, 1.625, 1.619, 1.618,...

What we see are two opposing waves, one connecting the odd numbered plot points and one connecting the even numbered. In other words, one curve above 1.618 and one curve below, each alternating their oscillations.

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Stage 2

789×479 35 KB

](<https://forum.numer.ai/uploads/default/original/2X/e/eefc7c75ea2ec0a263b42dcc0ebc65ef486081b8.png>)

Now I extend Fibonacci Sequence and plot the Golden Ratio again, this time as a table. We can now see all of the individualized waveforms (one for each row's progression) eventually generalize and resolve, after an initial "wild" period of dramatic swings, above and below 1.618.

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Stage 3

742×480 52.1 KB

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And after a final expansion, we are able to visualize a harmonic trend. This is vastly simplified, but as mathematics is as its own language, I'm trying to share what is a very complex technique, but in a simpler way to be quickly understood.

The Theory: I propose there is a tapestry being woven, with strings made of data, and we are blinded to the object the tapestry depicts. There is no reference picture, no labels with which to bootstrap a system of rules to organize/weave the threads into a legible picture.

My technique allows for threads of data to be woven together, allowing for interference and refraction of these wave patterns. The trick is to find the initial configuration (inside the parenthesis of Fibonacci), in the proper order. It is as aligning a combination lock, or more correctly perhaps, a series of lenses each focusing independently, all converging the same beam of light, each to illustrate its own picture, if it has one.

Conceptually, imagine we are trying to identify a random company that makes Ice Cream, from a big data set of many variables. Perhaps there's a correlation between increases of temperature and consumption of ice cream? This correlation would be distributed in the data, but without label and mixed into many extraneous data samples, such as the cost of lumber or the number of dogs/cats in America (random data set point examples).

So what we need to do is align the data, positionally, within the parenthetical portion of Fibonacci, then allow Machine Learning to vary these positions. Meaning, there are very few data points that will have a causation linkage with a given company (like interest rates would be to a mortgage company), most of the data would be garbage to the individual stock being looked at, (like number of trees per person in the state of Oregon would be, to the same mortgage company).

SO, if there are any identifiable correlations within each row's waveform, they have to be separated from the non-sensical signals also included in each dataset. This occurs positionally, within the parenthesis, but there are many variations so I'd need help using ML to run all possible configurations and attempt to correctly position the "lenses" to resolve and focus a clear picture of what we're looking at.

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Graph 1

1145×319 287 KB

](https://forum.numer.ai/uploads/default/original/2X/6/6ab22cdca04ed64d6c7ff744843042c89d9f8291.png)

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Graph 2

657×512 152 KB

](https://forum.numer.ai/uploads/default/original/2X/a/a2d79db3a6abf461f28d19b76dff6226536d7d1d.png)

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Graph 3

407×519 258 KB

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Complexity may then be patterned in various dimensions, such as a 2D representation in the above 3 examples. Or as a 3D representation in the 3 examples below.

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3D Graph 1

863×568 174 KB

](https://forum.numer.ai/uploads/default/original/2X/a/af4251fefa8cbfff829492f7fb0829b26372aa30.png)

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3D Graph 2

541×521 77.7 KB

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3D Graph 3

791×540 103 KB

](https://forum.numer.ai/uploads/default/original/2X/f/f7ac00d2495fabaa2f827aedbba8f204355422df.png)

These are created, using the Fibonacci technique coupled with what I call the Vortex algorithm, then X,Y coordinates are created. Lastly I calculate a Z coordinate for each position and plot in 3 dimensions.

To conclude, my goal is to find other(s) who are interested in solving this amazingly interesting and complex puzzle before us, like the world's largest jigsaw puzzle with no box as reference point! I'm looking for those with comp sci background and machine learning ideas. I'm trying hard to explain as much as I can without going into too much detail...so please let me know if a collaboration is of interest and I'll happily share all sources and methods I have.

My name is Bob and my email is bob@if.zone