# Æther Analytics

## Cycle Analysis

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"The primary discovery in all of Technical Analysis is that 'time' and 'price' are the same manifestation and are interchangeable.“

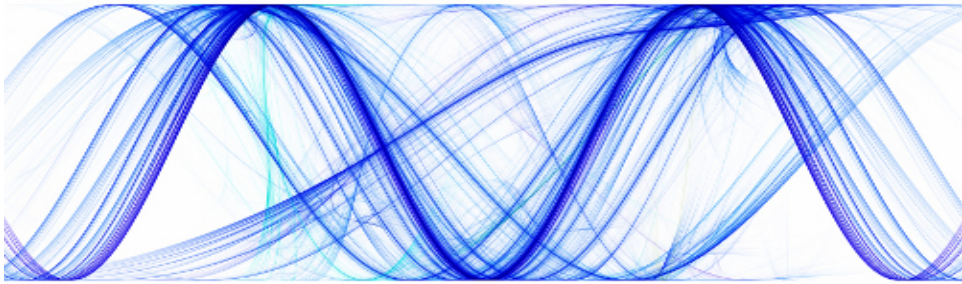
– Bradley Cowan

What is a good Price to Buy?

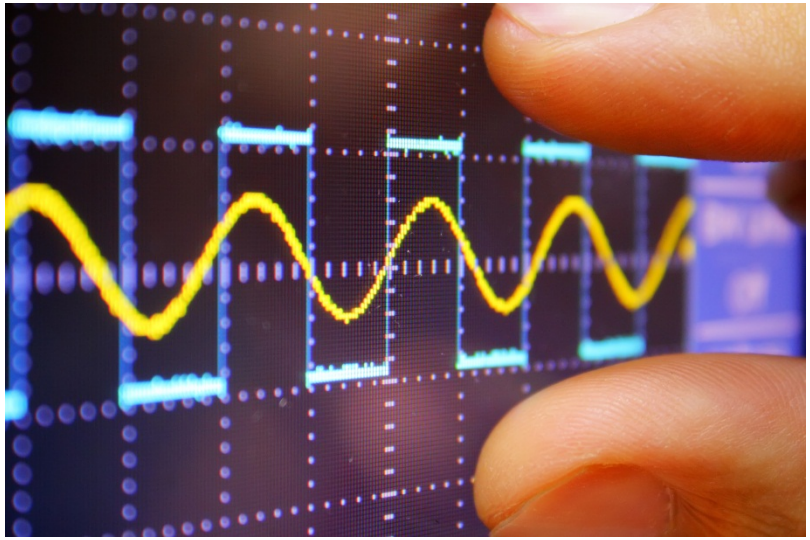
What is a good Time to Buy?

# References

- JM Hurst – “Father of cycle analysis”
- John Ehlers – Spectral Dilation
- Walter Bressert
- Lars Von Theiden
- Edward Dewey
- Bradley Cowan
- Charles Nenner
- Martin Armstrong
- William Garrett

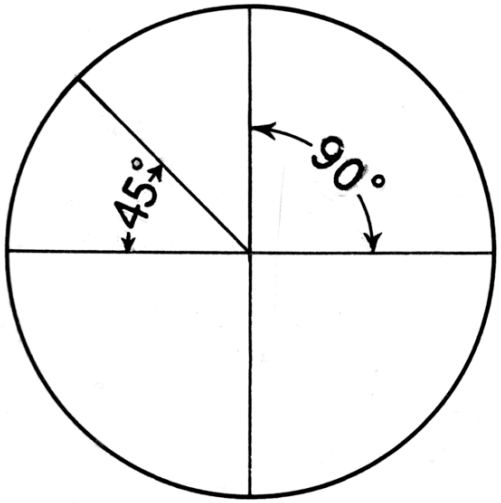


# Theories of Market Action



# Cycles 101

- Cycles are circles
- Cycles can be measured in Time or in Space
- Most cycles in markets are <u>not</u> perfect circles or perfect sine waves

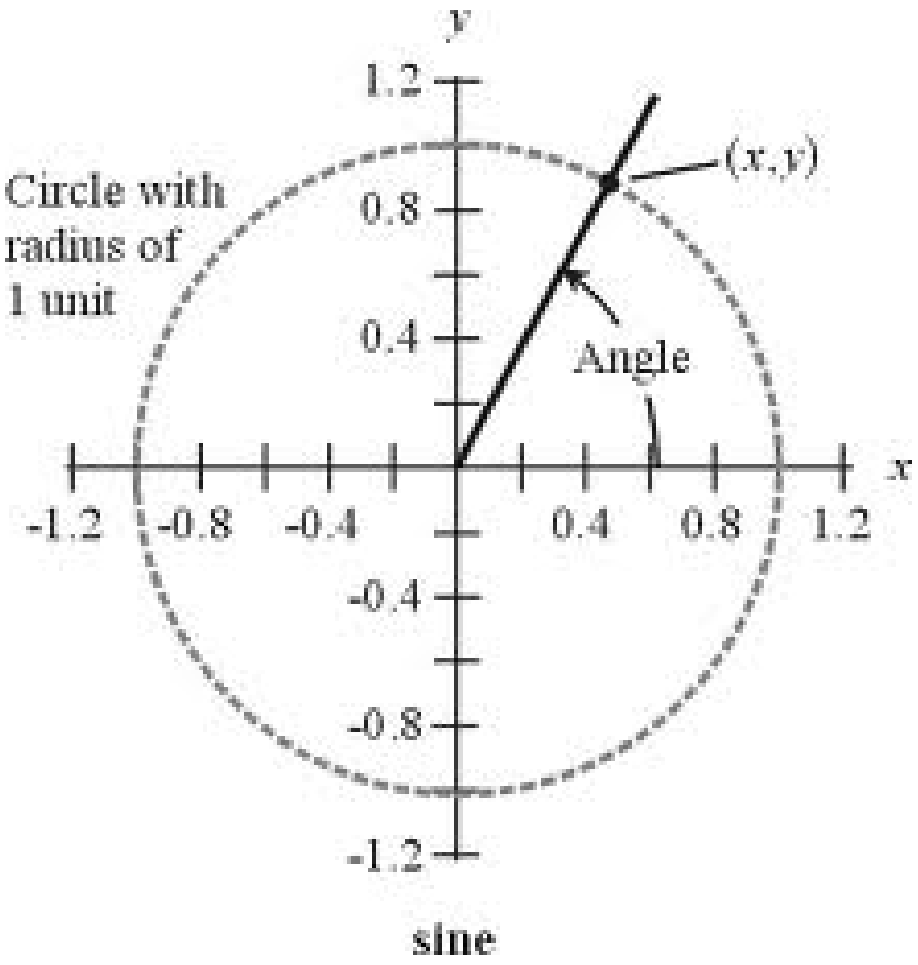



# Viewing the Market as a Cycle

**Definition : One complete revolution of a series of events**

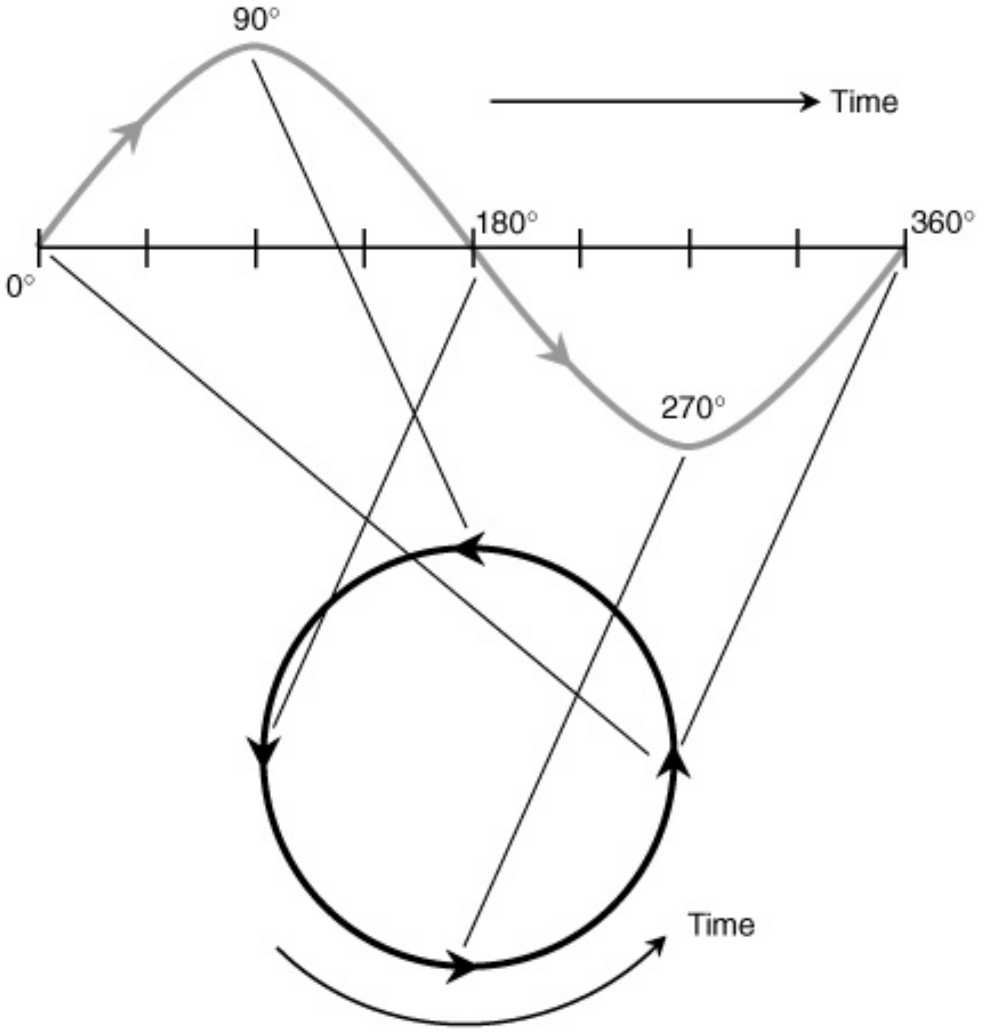
**Types of cycles**

1. **Lunar Cycles**
2. **Time Cycles**
3. **Weather Cycles**
4. **Seasonal Cycles**
5. **Agricultural Cycles**
6. **Biological Cycles**
7. **Music / Rhythm Cycles**
8. **Economic / Business Cycles**
9. **War Cycles**
10. **Astrological Cycles**



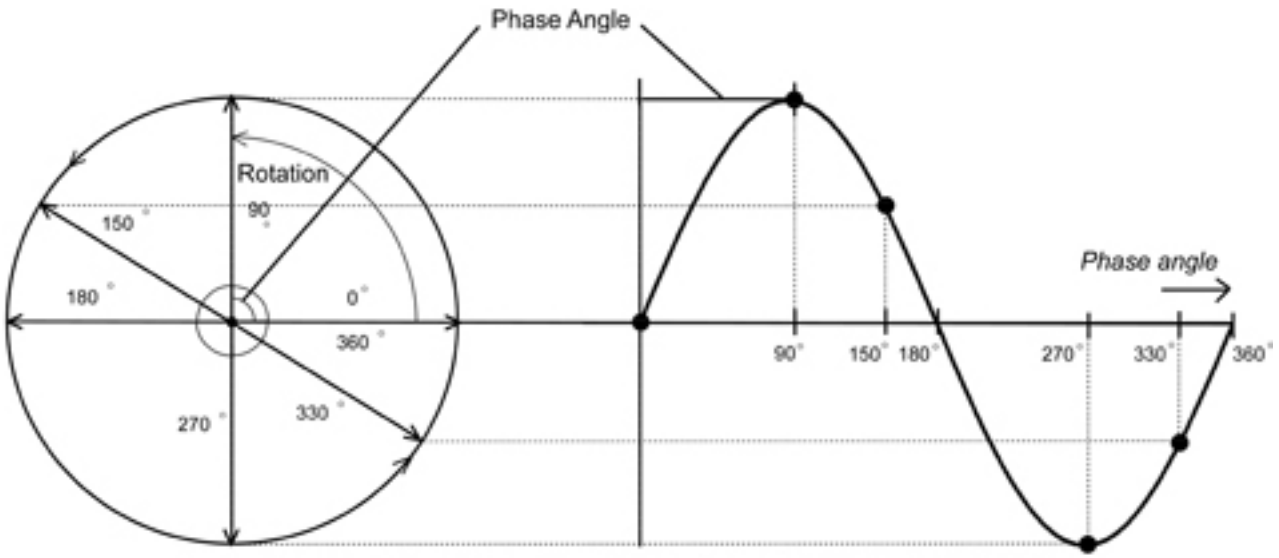
# Cycles 101

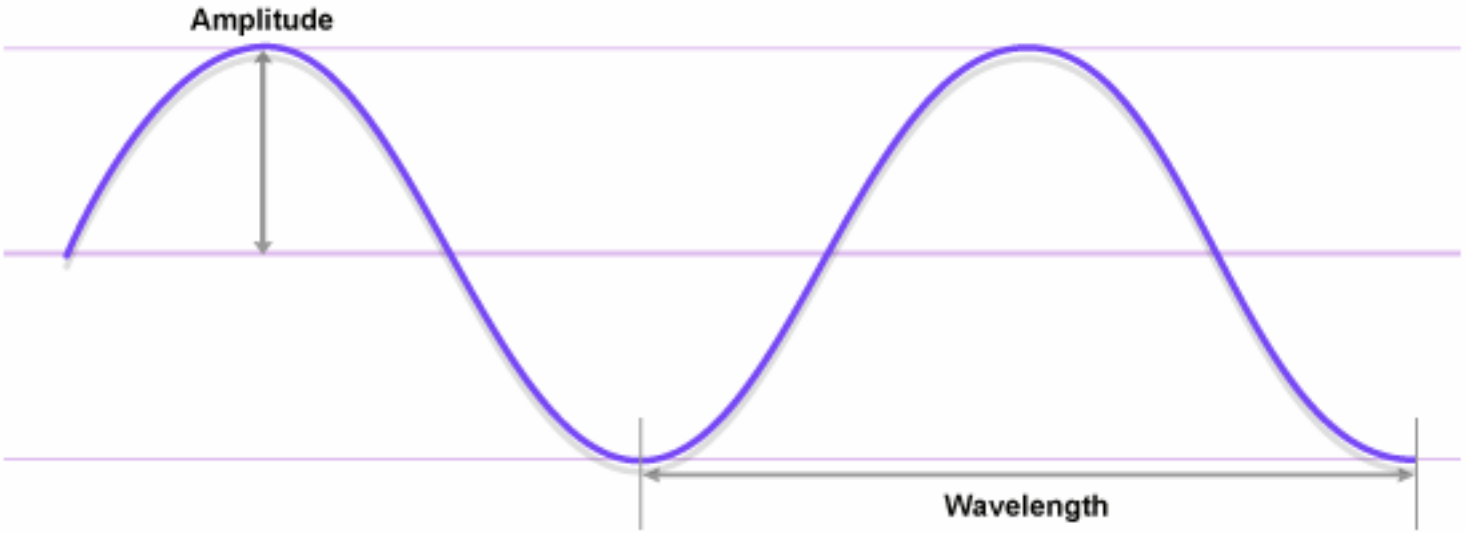
- **Price & Time Analysis : Each market will develop its own cycles. These cycles are just a repetition of the past in fractal geometric forms.**
- **Cycles are just expansions, recoils and detractions of a cycles (circles) bound by pi & phi.**
- **Cycles are DYNAMIC in nature**
- **Dynamic meaning the current state of cycles in the market are not fixed**



# Viewing the Market as a Cycle

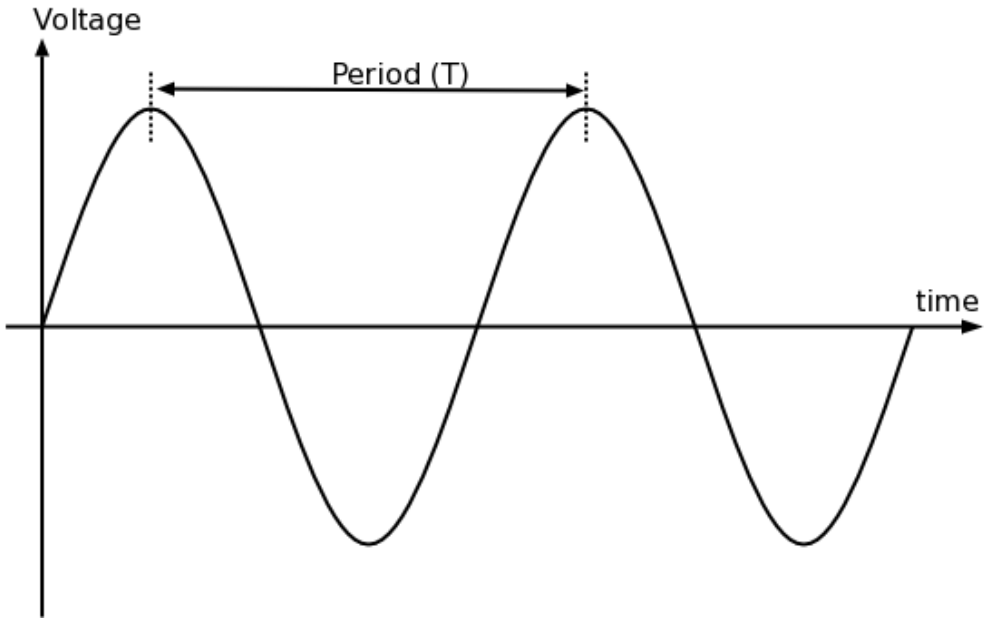
**Perfect cycle :** Sine Wave

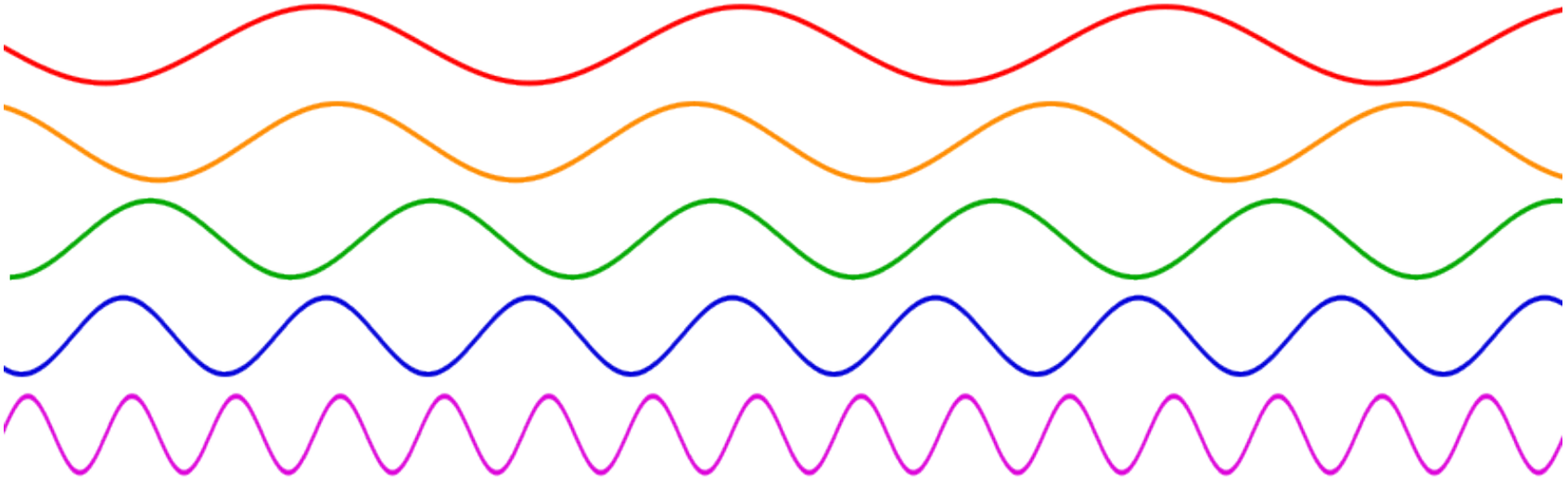


# Viewing the Market as a Cycle

## Different Frequencies

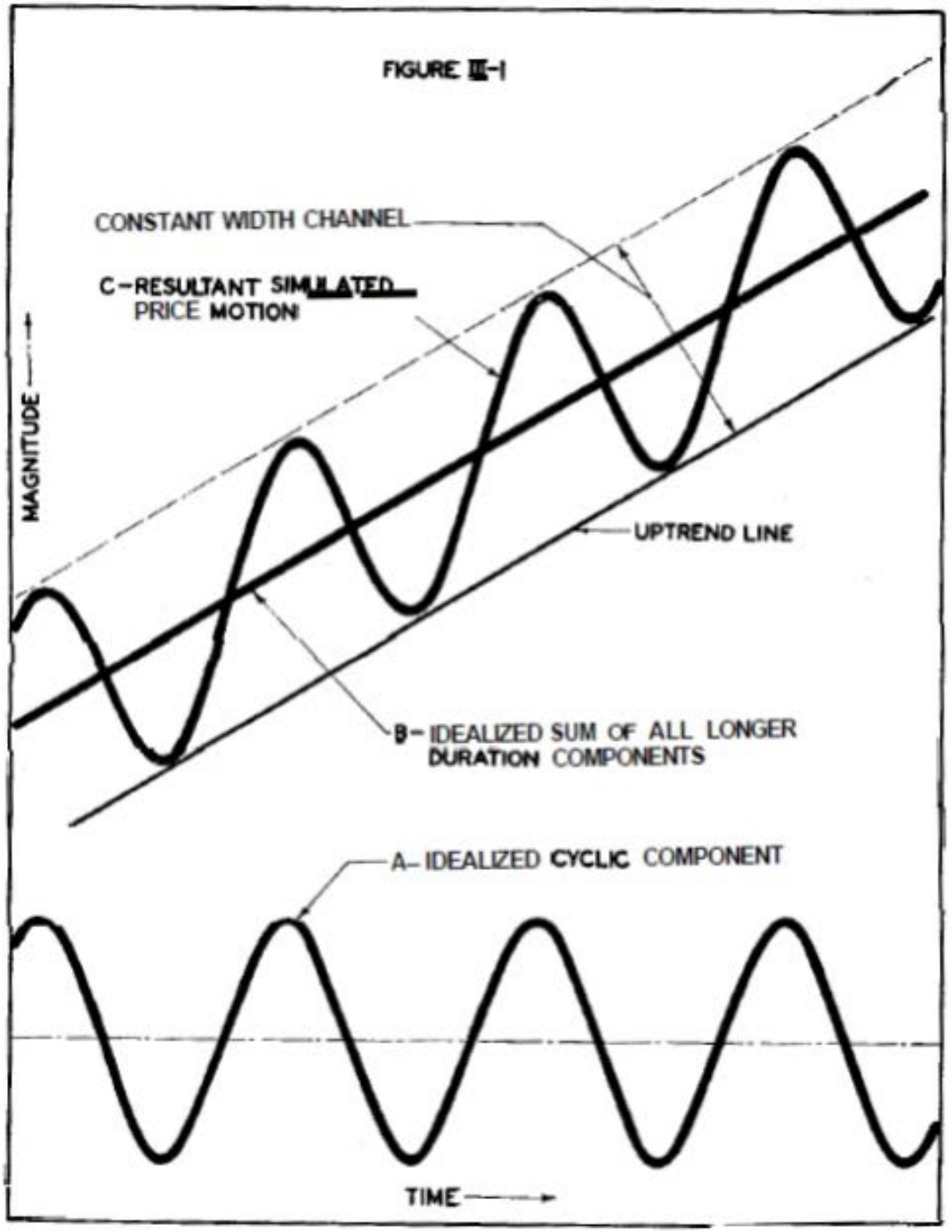


# Basic Method of Finding Cycles In Price Data

- **Establish a moving average / Regression from the price-time data.**
- **Convert the price-time data into a low lag moving average to obtain the percent deviation from the base moving average.**
- **Visually or statistically using a Fourier transform, obtain the cycles from the data**
- **The rank version of Von Neumann ratio test for randomness – Bartells Test (statistical significance)**

- ***Optimization = Data Filtering Pre & Post Transform***
- ***Fourier " mathematical transform that defines a function based on time series data, or visa versa"***



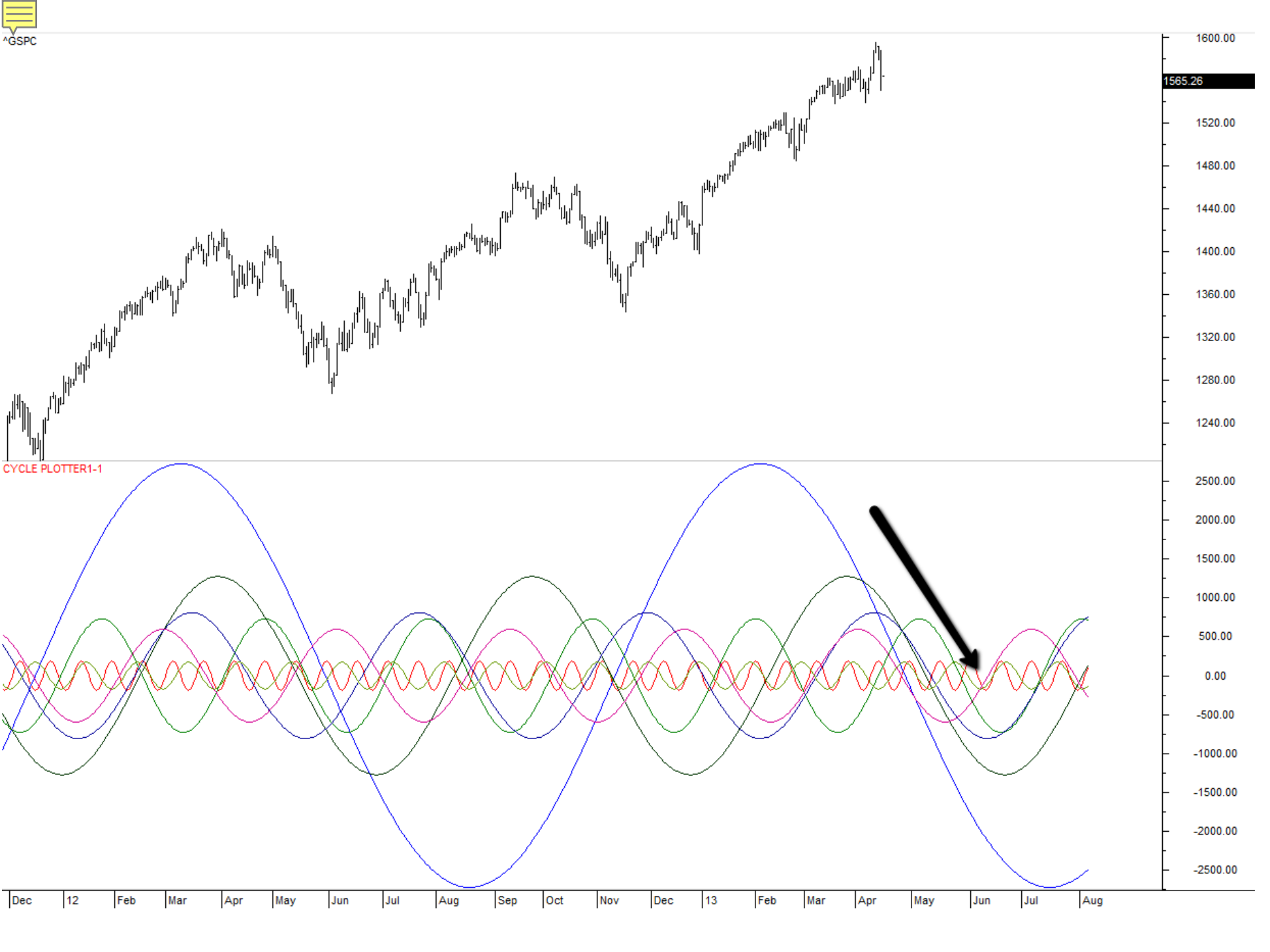

Channel Formation

**Walter Bressert**

LvT Cycle Scanner Report

Build date :3/15/2013 @ 1:23 PM
Symbol & Series :^GSPC Day1 / ^GSPC.close
Analysis period :4/9/2001 12:00:00 AM -> 3/15/2013 12:00:00 AM
Analysis bars :1 -> 3001
Datapoints :3001
Bartels Limit : >= 49 % Bartels reliable up to cycle length: 600
Sorted by :Strength
Range (min-max) :5 -> 299

| Length | Amplitude | Bar Cycle Low | Date Cycle Low | Strength | Bartels % |
|---|---|---|---|---|---|
| 12 | 195.20 | 2 | 4/10/2001 12:00 AM | 16.27 | 85.52 % |
| 7 | 97.16 | 6 | 4/17/2001 12:00 AM | 13.88 | 64.16 % |
| 52 | 678.57 | 3 | 4/11/2001 12:00 AM | 13.05 | 92.55 % |
| 64 | 807.81 | 61 | 7/5/2001 12:00 AM | 12.62 | 58.80 % |
| 227 | 2726.78 | 135 | 10/24/2001 12:00 AM | 12.01 | 67.39 % |
| 35 | 404.14 | 10 | 4/23/2001 12:00 AM | 11.55 | 73.92 % |
| 123 | 1250.61 | 116 | 9/27/2001 12:00 AM | 10.17 | 71.94 % |
| 179 | 1489.67 | 130 | 10/17/2001 12:00 AM | 8.32 | 83.62 % |
| 22 | 181.04 | 3 | 4/11/2001 12:00 AM | 8.23 | 63.48 % |
| 66 | 533.46 | 52 | 6/21/2001 12:00 AM | 8.08 | 65.87 % |
| 68 | 547.57 | 54 | 6/25/2001 12:00 AM | 8.05 | 63.78 % |
| 15 | 119.95 | 7 | 4/18/2001 12:00 AM | 8.00 | 83.45 % |
| 167 | 1206.65 | 149 | 11/13/2001 12:00 AM | 7.23 | 89.85 % |
| 56 | 386.71 | 43 | 6/8/2001 12:00 AM | 6.91 | 50.76 % |
| 48 | 322.55 | 16 | 5/1/2001 12:00 AM | 6.72 | 90.06 % |
| 253 | 1593.99 | 116 | 9/27/2001 12:00 AM | 6.30 | 89.43 % |
| 155 | 876.17 | 24 | 5/11/2001 12:00 AM | 5.65 | 76.57 % |
| 117 | 645.55 | 110 | 9/19/2001 12:00 AM | 5.52 | 60.76 % |
| 129 | 639.01 | 99 | 8/28/2001 12:00 AM | 4.95 | 65.69 % |
| 70 | 239.71 | 50 | 6/19/2001 12:00 AM | 3.42 | 59.27 % |


^GSPC
1600.00
1565.26
1520.00
1480.00
1440.00
1400.00
1360.00
1320.00
1280.00
1240.00
CYCLE PLOTTER1-1
2500.00
2000.00
1500.00
1000.00
500.00
0.00
-500.00
-1000.00
-1500.00
-2000.00
-2500.00
Dec
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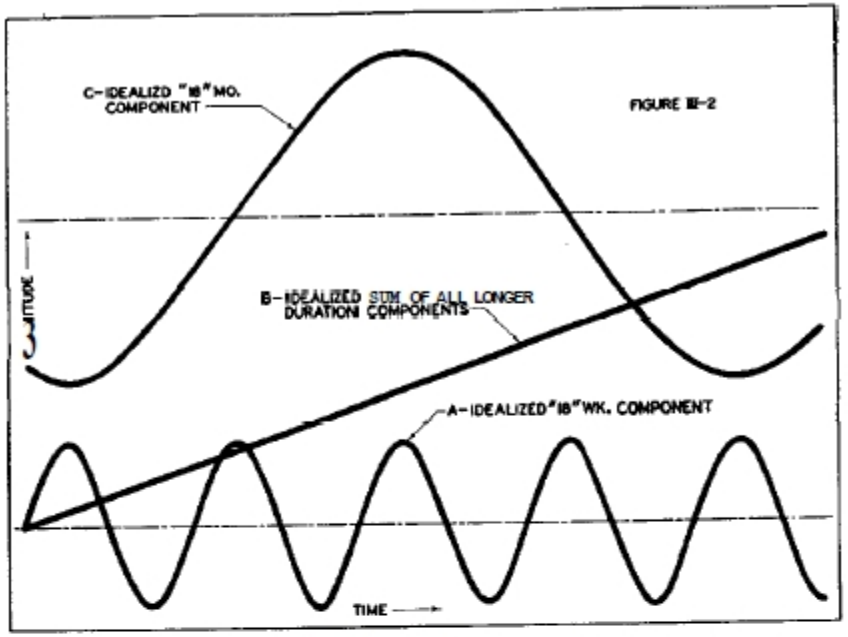
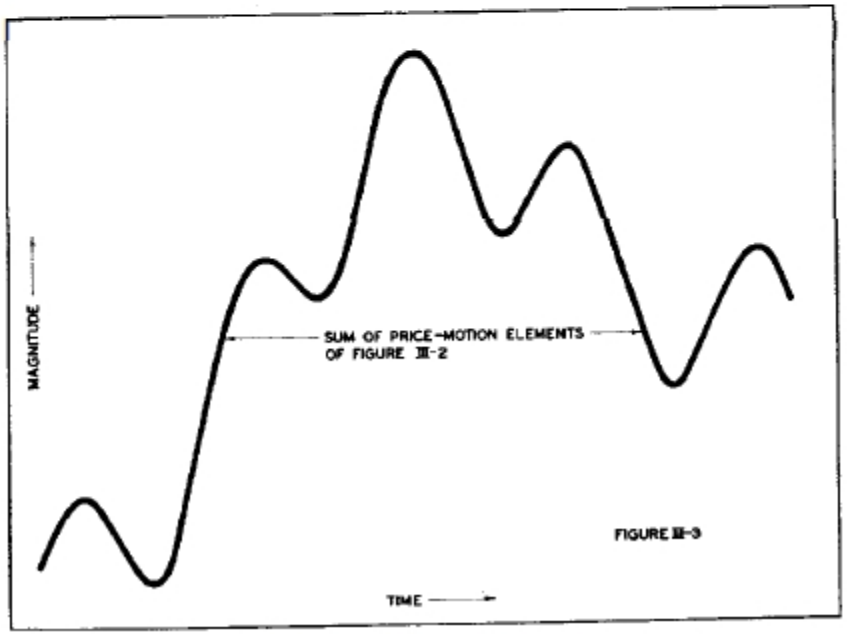


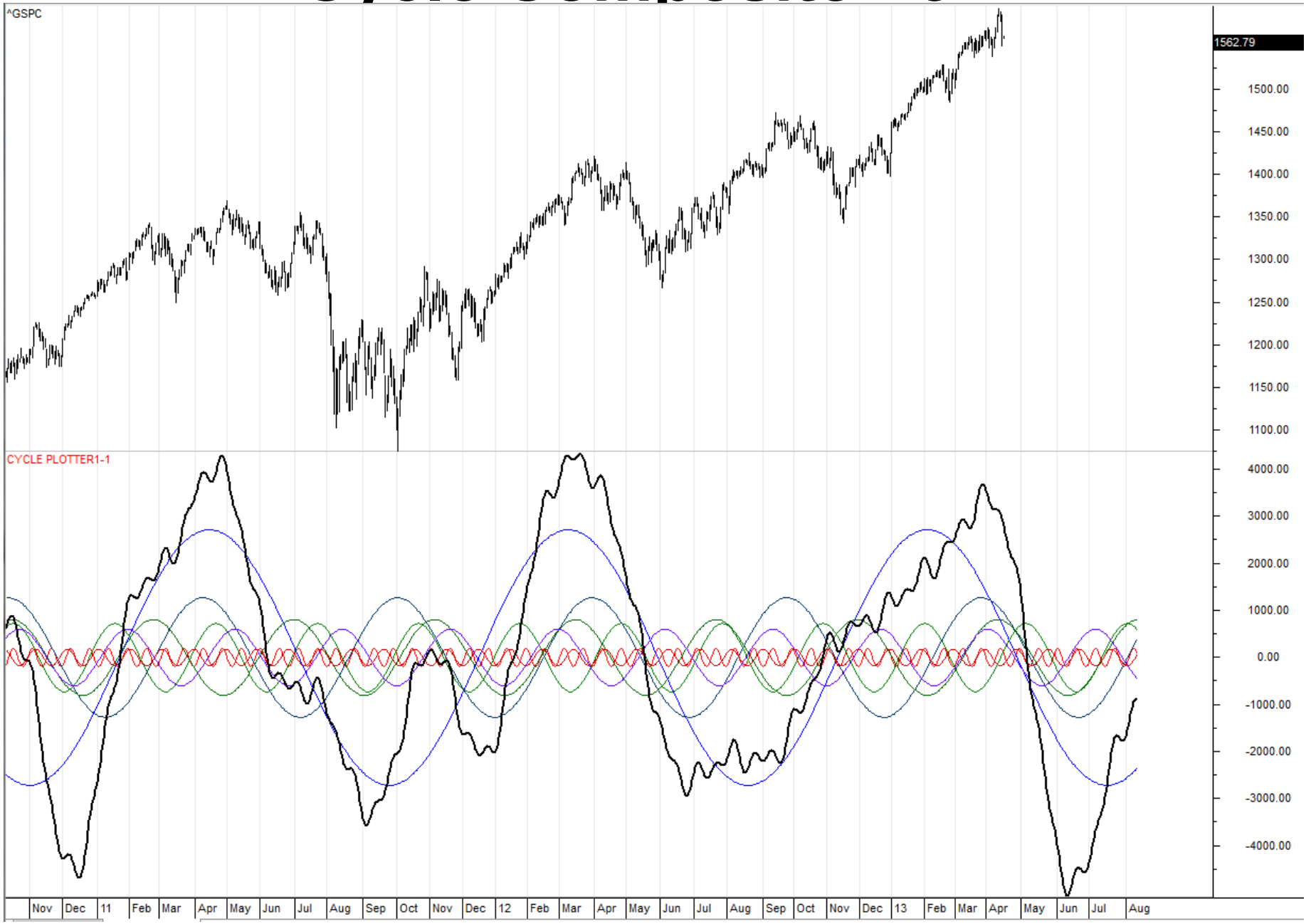

Adding Another Component



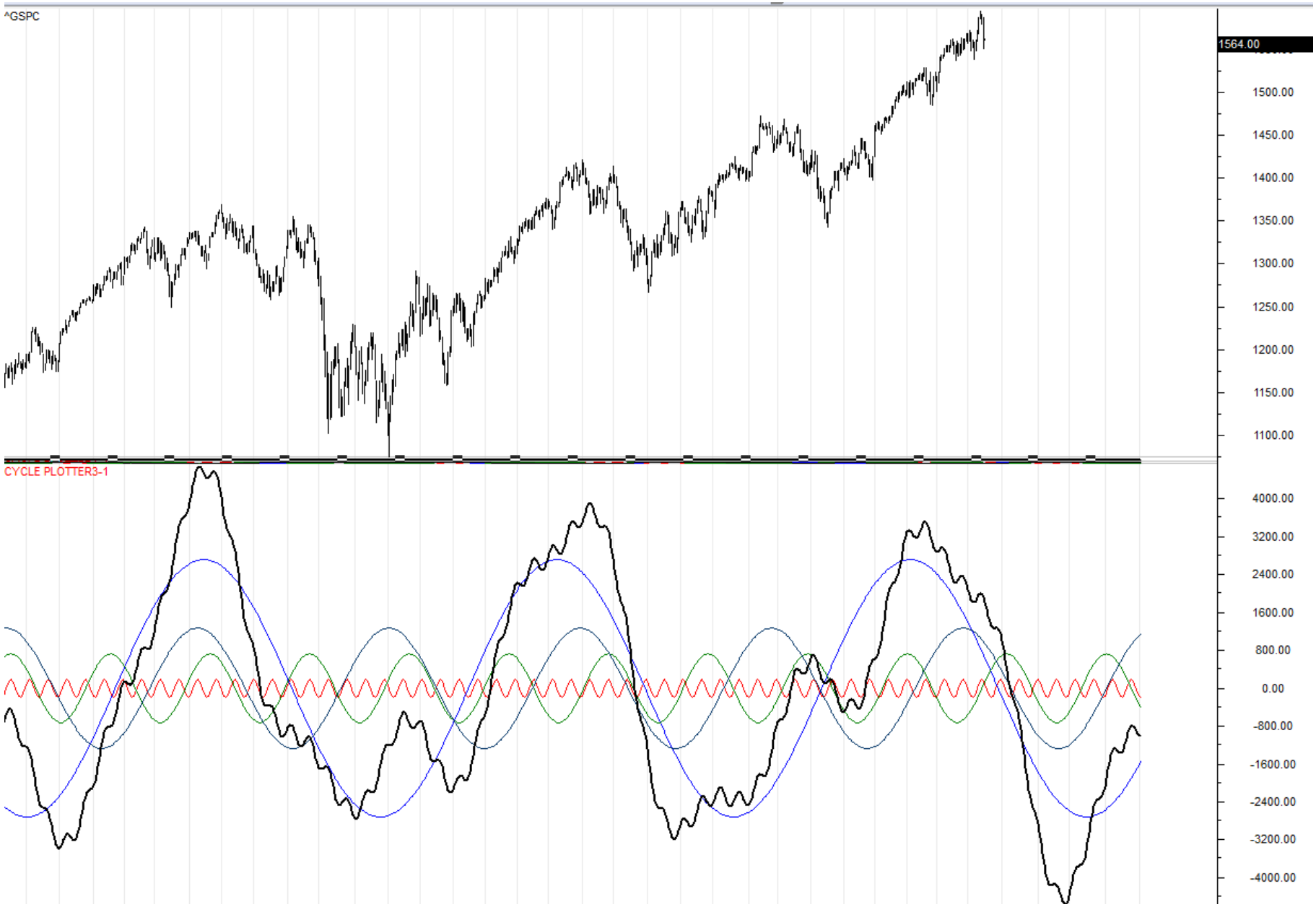

The Summation Principle Applied

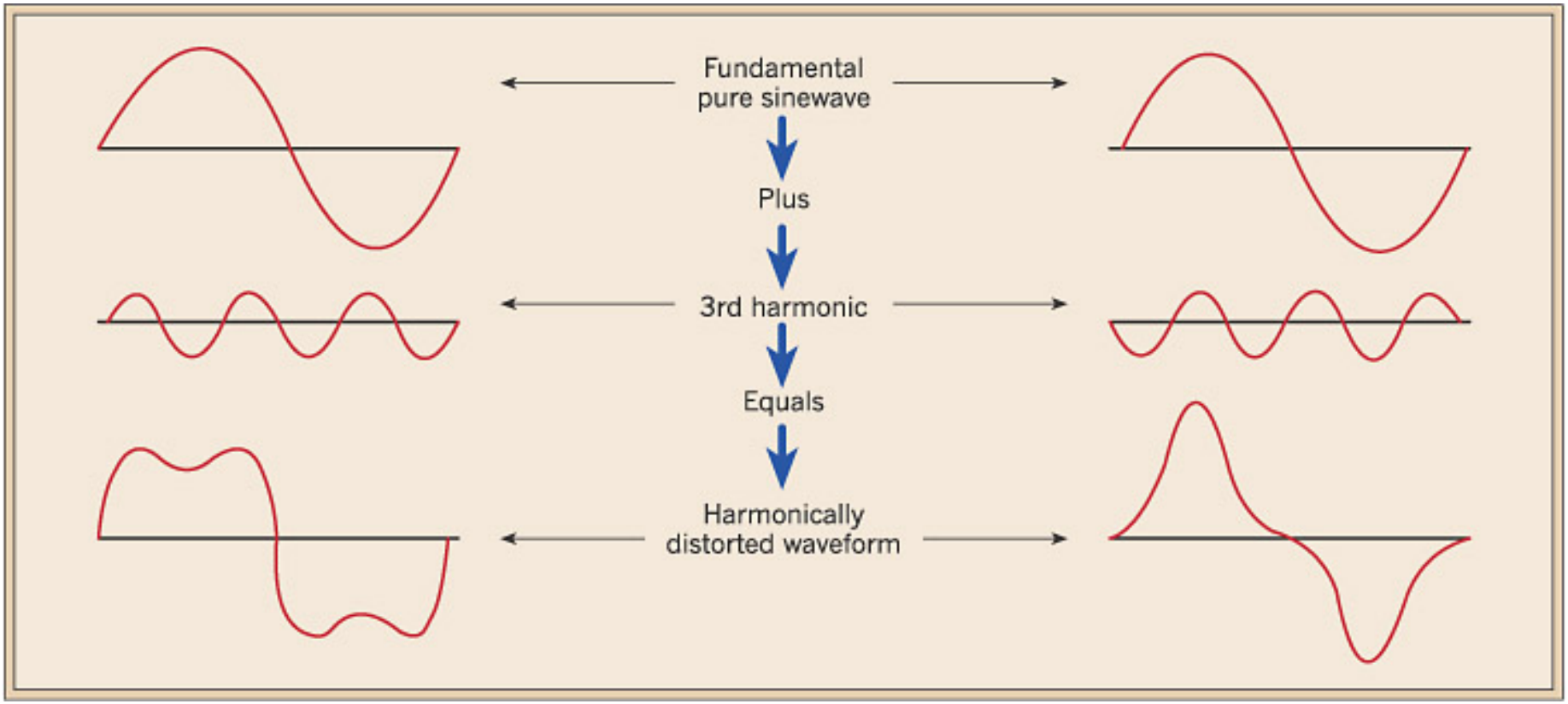
**Walter Bresser**

# Cycle Composite - 6



# Cycle Composite 4




Fundamental
pure sinewave
Plus
3rd harmonic
Equals
Harmonically
distorted waveform

# Movement of Spheres

# Volume = Energy

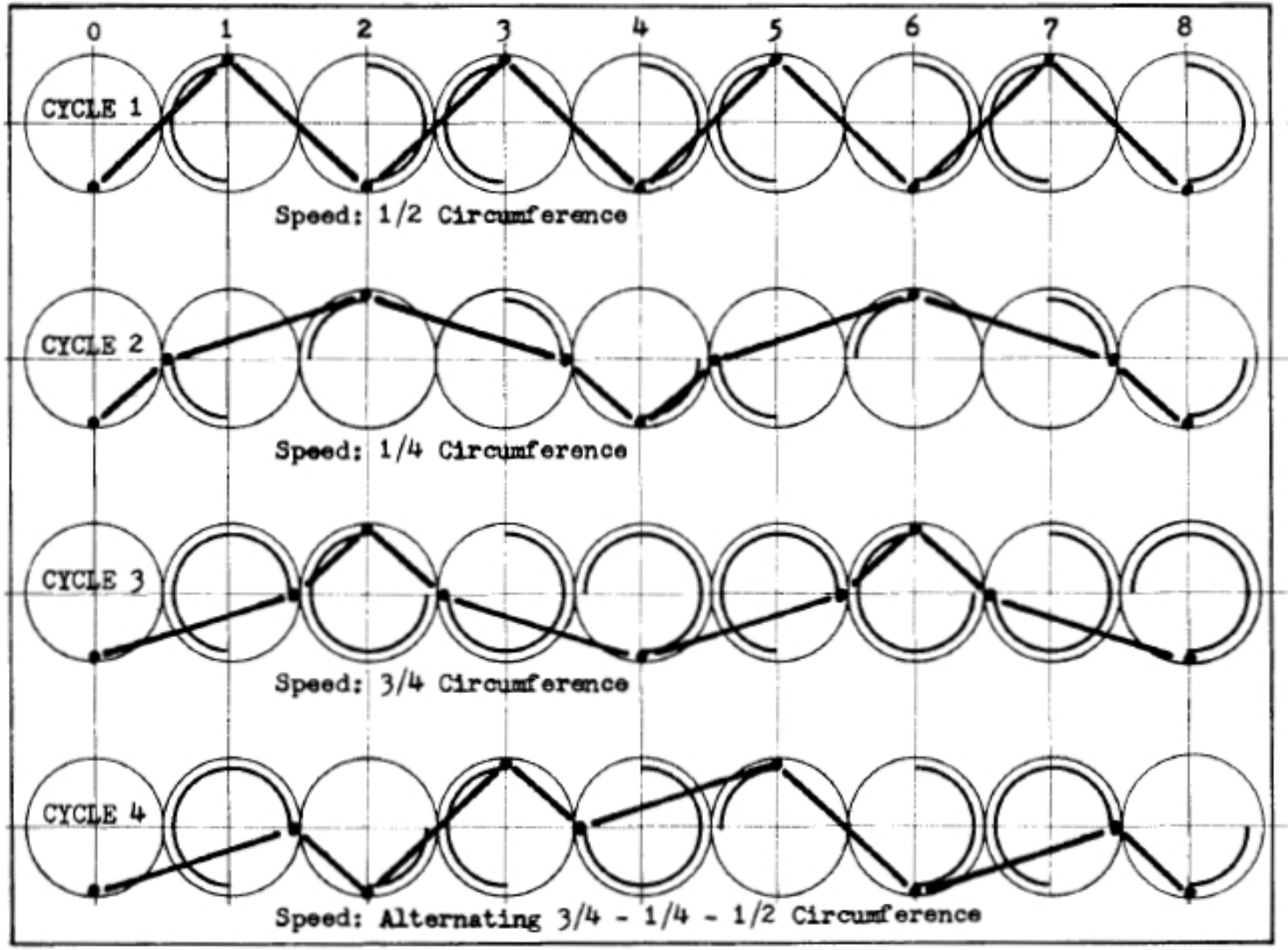



Fig. 3.1—*The effect of varying speeds of revolution on a single cycle.*

# Volume

- Total volume transacted
- Buying volume
- Selling volume
- The resulting price change from the equilibrium reached by the two B/S.
- Rubber Ducks

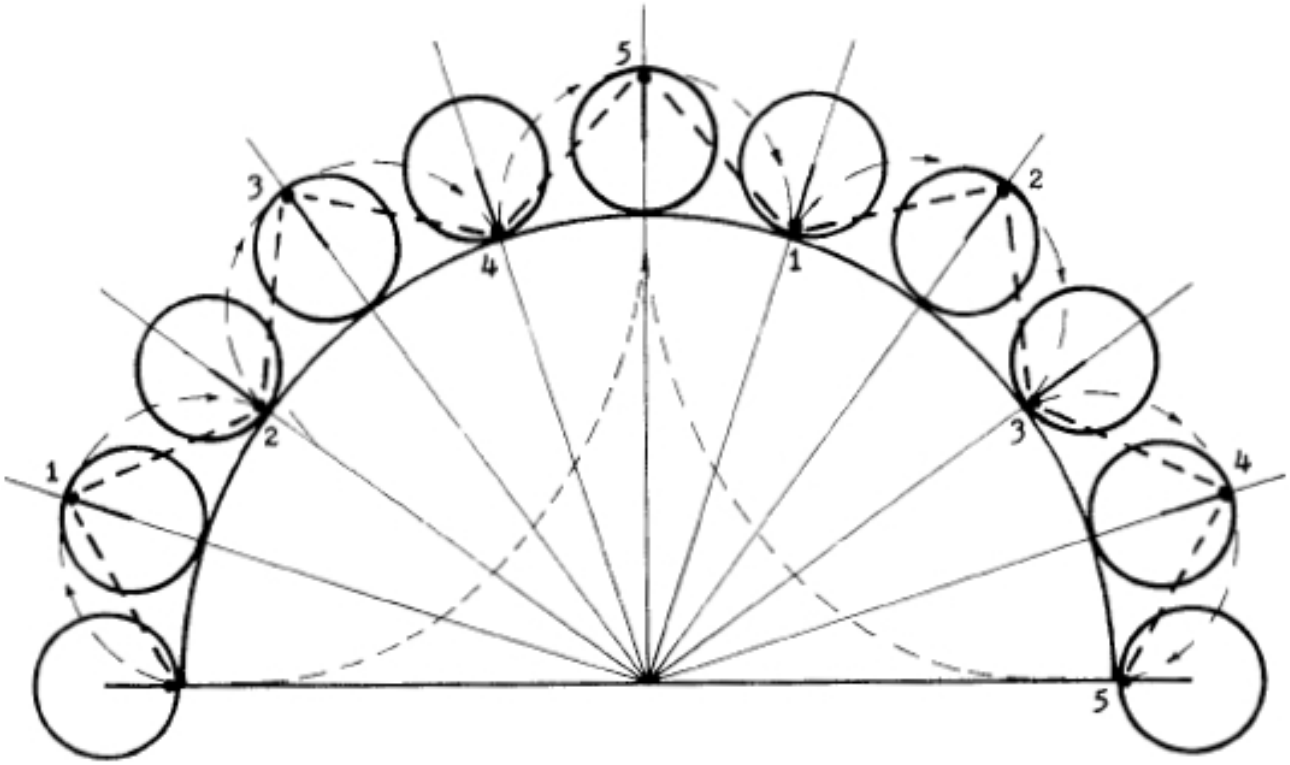
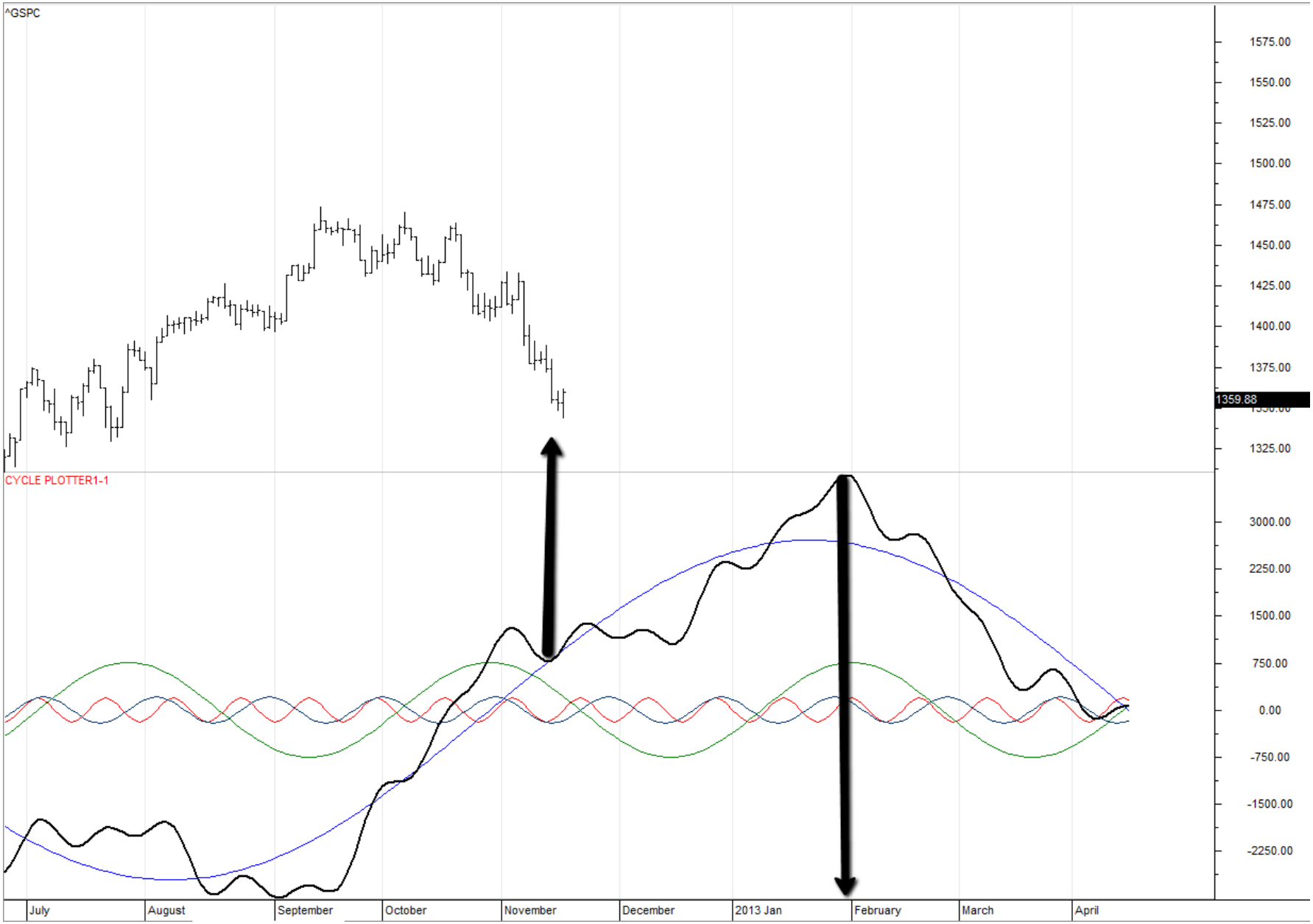
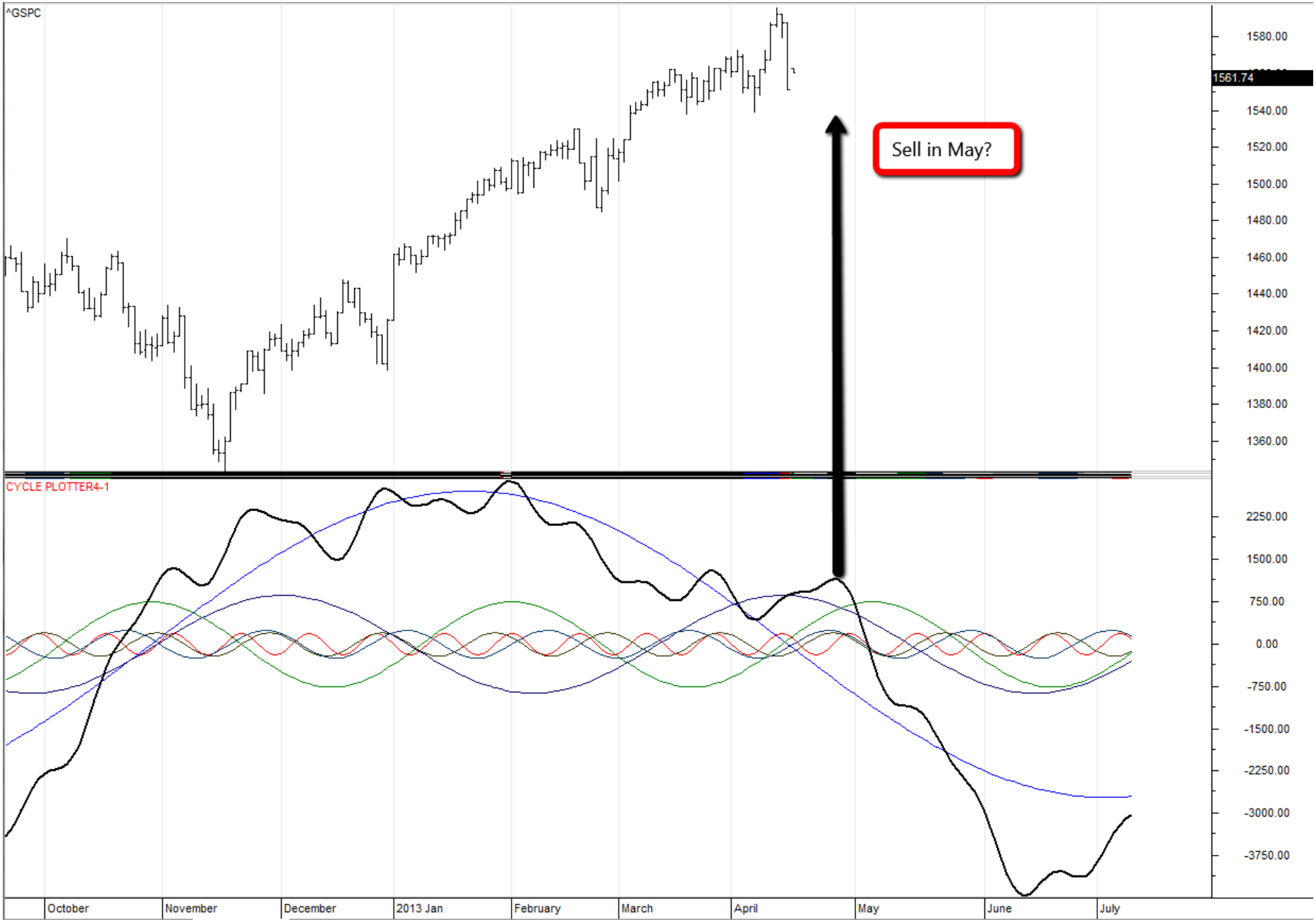



Fig. 3.2—*The epicyclic arrangement of market cycles in a schematic drawing. The dashed curve represents volume buildup.*

# Cycle Progression




^GSPC
1575.00
1550.00
1530.94
1500.00
1475.00
1450.00
1425.00
1400.00
1375.00
1350.00
1325.00
CYCLE PLOTTER2-1
3000.00
2250.00
1500.00
750.00
0.00
-750.00
-1500.00
-2250.00
-3000.00
October
November
December
2013 Jan
February
March
April
May
June
July


^GSPC
Sell in May?
CYCLE PLOTTER4-1
1580.00
1561.74
1540.00
1520.00
1500.00
1480.00
1460.00
1440.00
1420.00
1400.00
1380.00
1360.00
2250.00
1500.00
750.00
0.00
-750.00
-1500.00
-2250.00
-3000.00
-3750.00
October
November
December
2013 Jan
February
March
April
May
June
July


^VIX
27.00
25.50
24.00
22.50
21.00
19.50
18.00
16.50
15.00
14.56
13.50
12.00
CYCLE PLOTTER2-1
375.00
300.00
225.00
150.00
75.00
0.00
-75.00
-150.00
-225.00
-300.00
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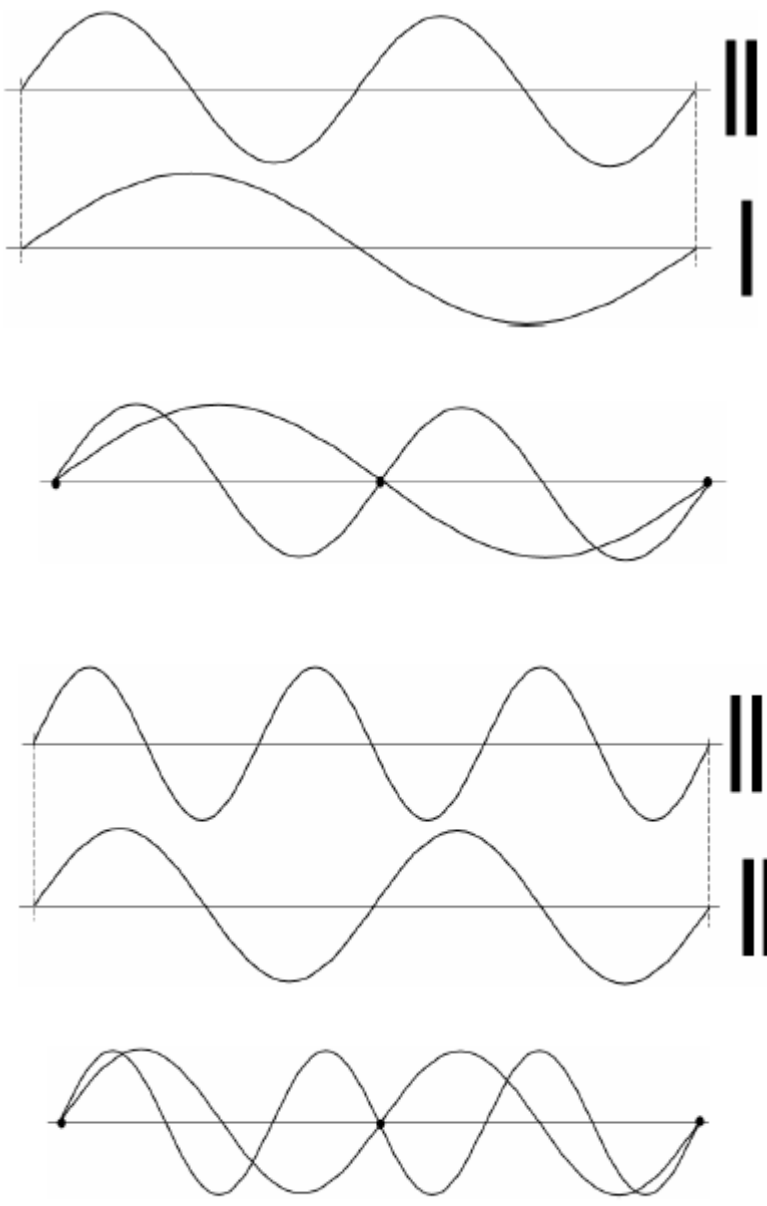
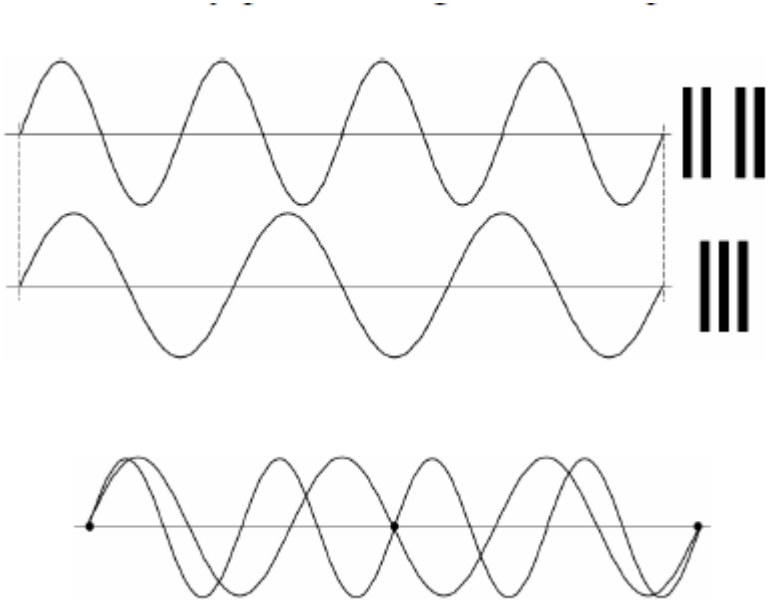
# Harmonics

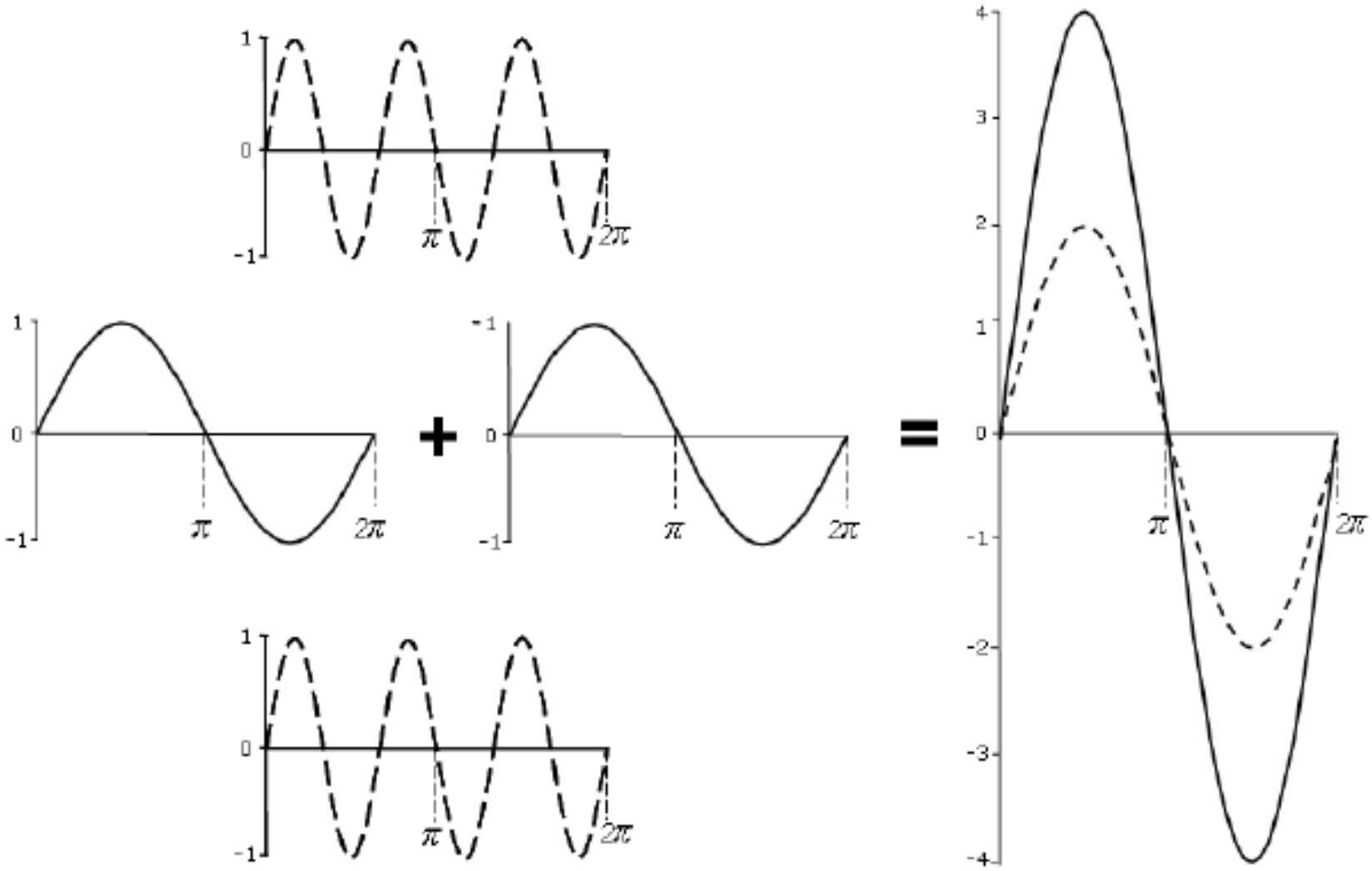




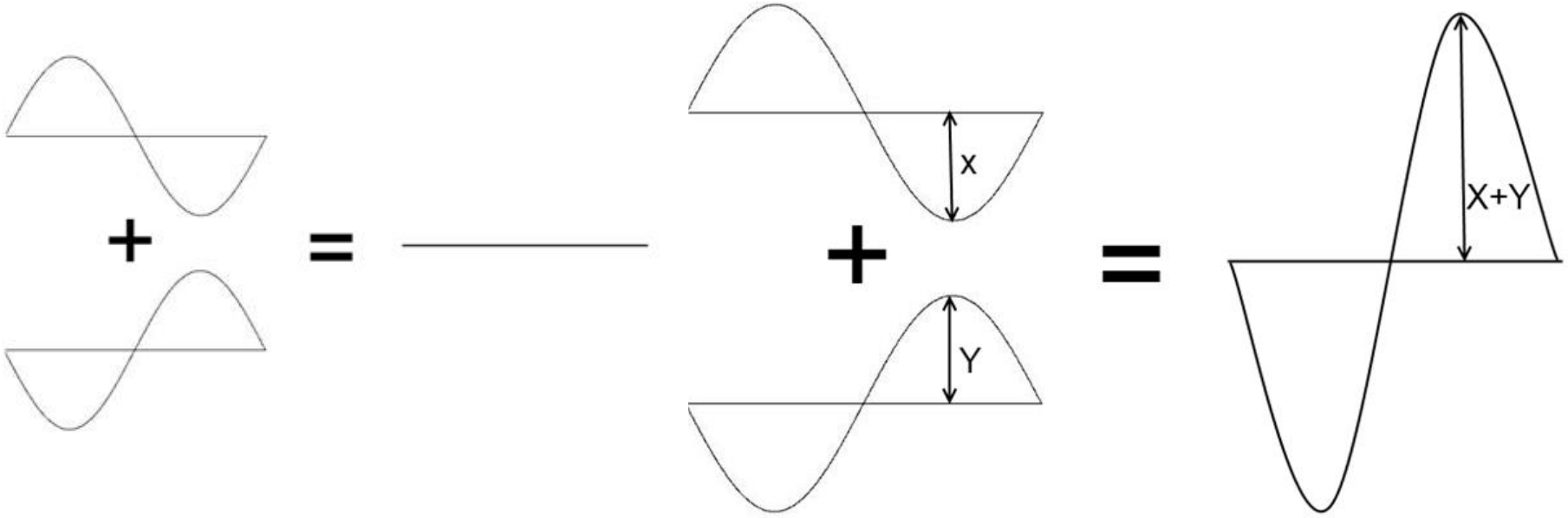


- **Node Alignment also important when analyzing the harmonics**

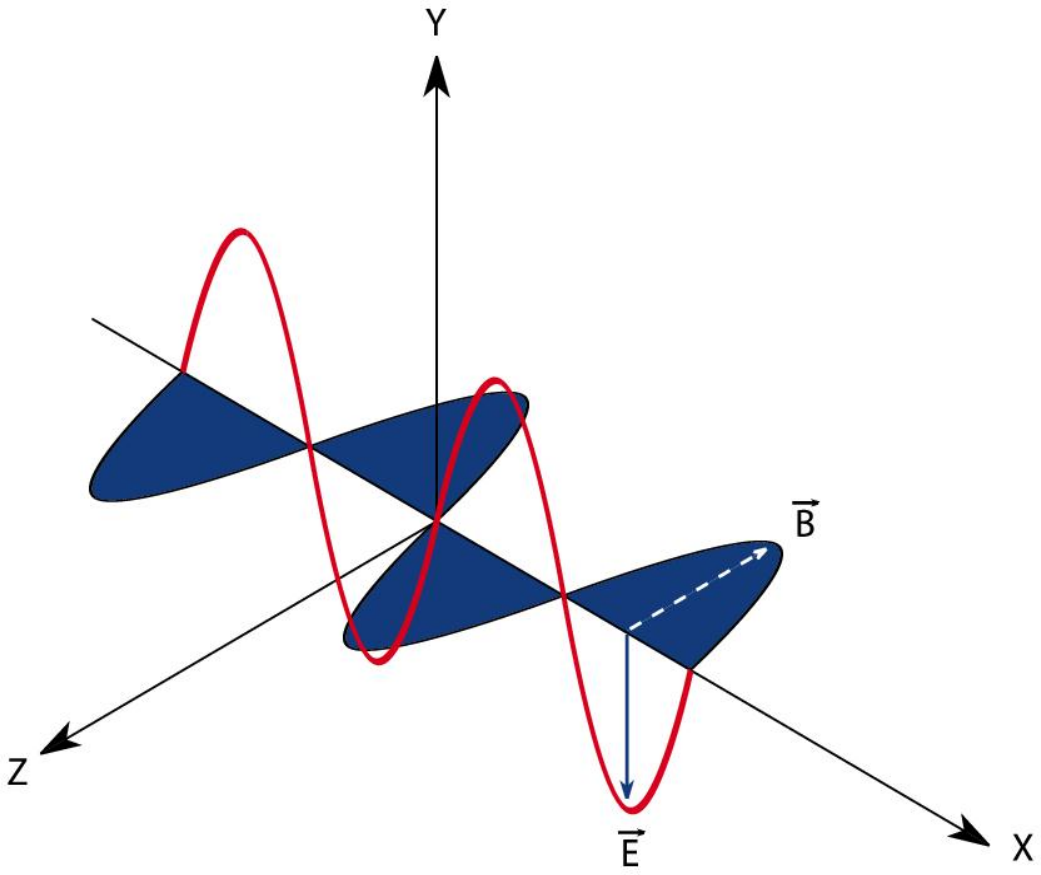
# Cycle Phenomenon



# Effects of opposing Cycle Components

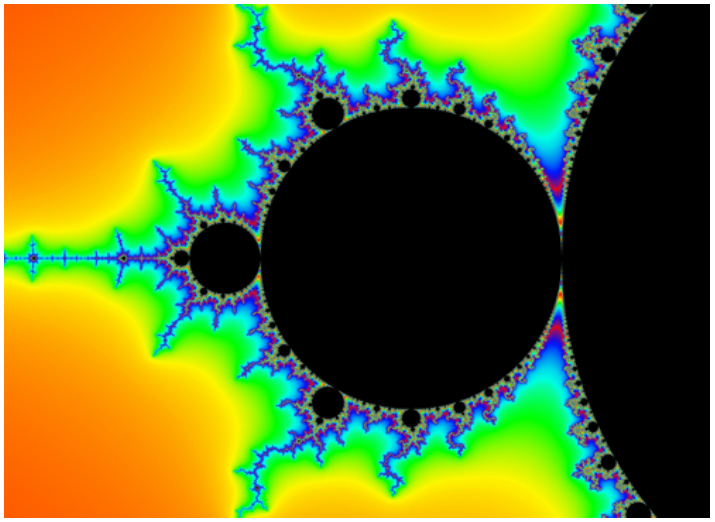


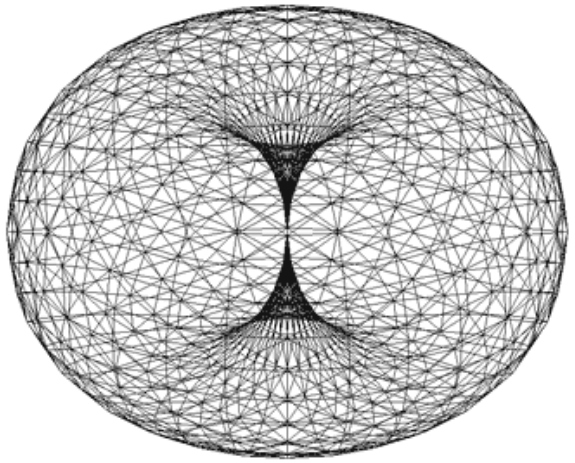
# Lost Energy



# New Areas of Cycle Research

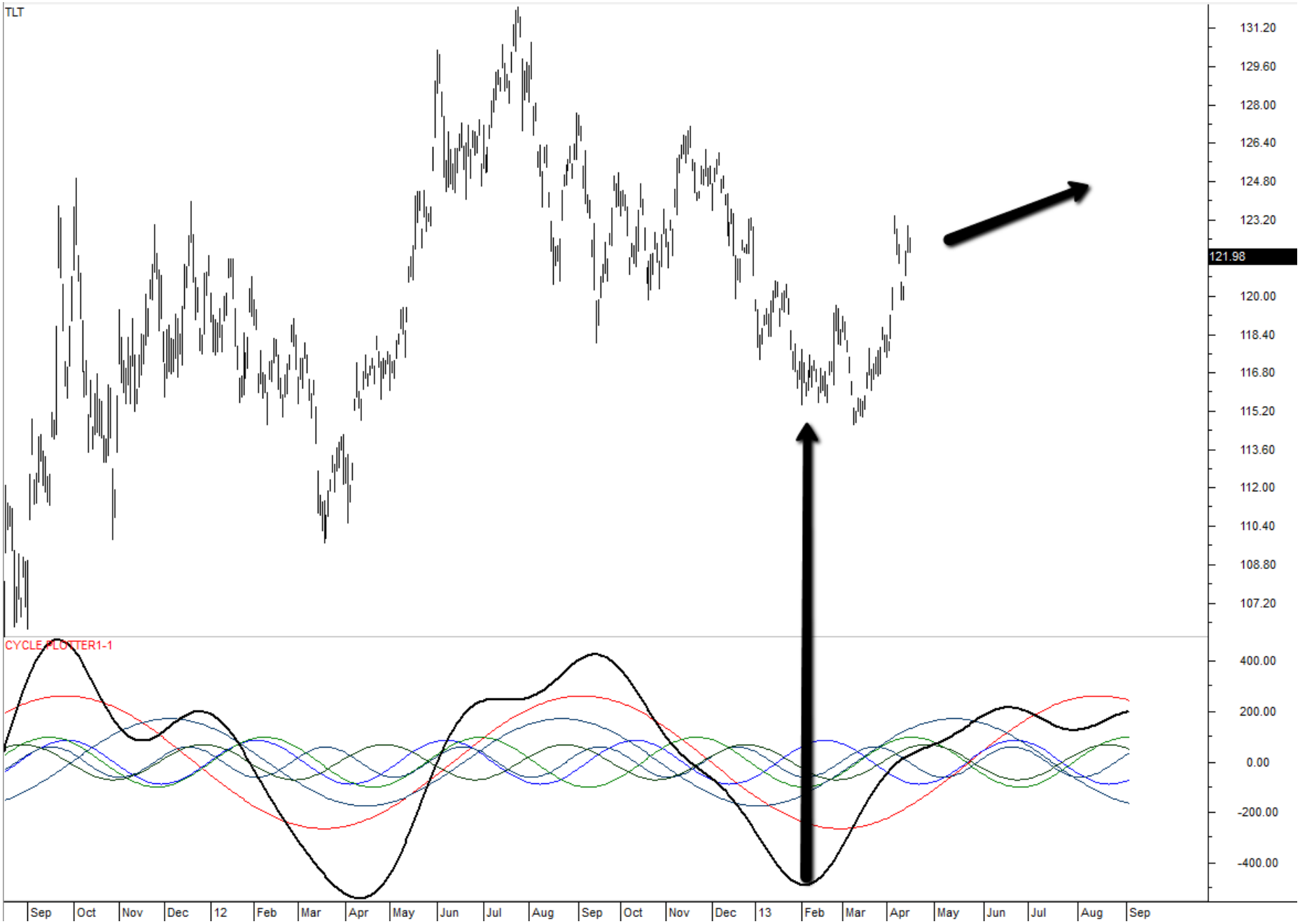
- Cycles on Spreads (Eurodollar / Euribor / TBills)
- Cycles on Indicators RSI, ADX, Oscillators
- Cycles on Implied Volatility
- Intra-day Volume Cycles
- Asymmetric Cycle Refinement “Chaos Tuning”
- Applied Vortex Mathematics





# Cycle Analysis Resources

- **CATS “Cycle Analysis & Time Series “ (free)**
- **Whentotrade.com (Fourier)**
- **sr-analyst.com (eSignal)**
- **sentienttrader.com (Hurst Method)**
- **MESASOFTWARE – (Ehler Method)**
- **http://see.stanford.edu (free classes Fourier)**
- **alex@aetheranalytics.com**
- **@Interestratearb**


TLT
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112.00
110.40
108.80
107.20
CYCLE PLOTTER1-1
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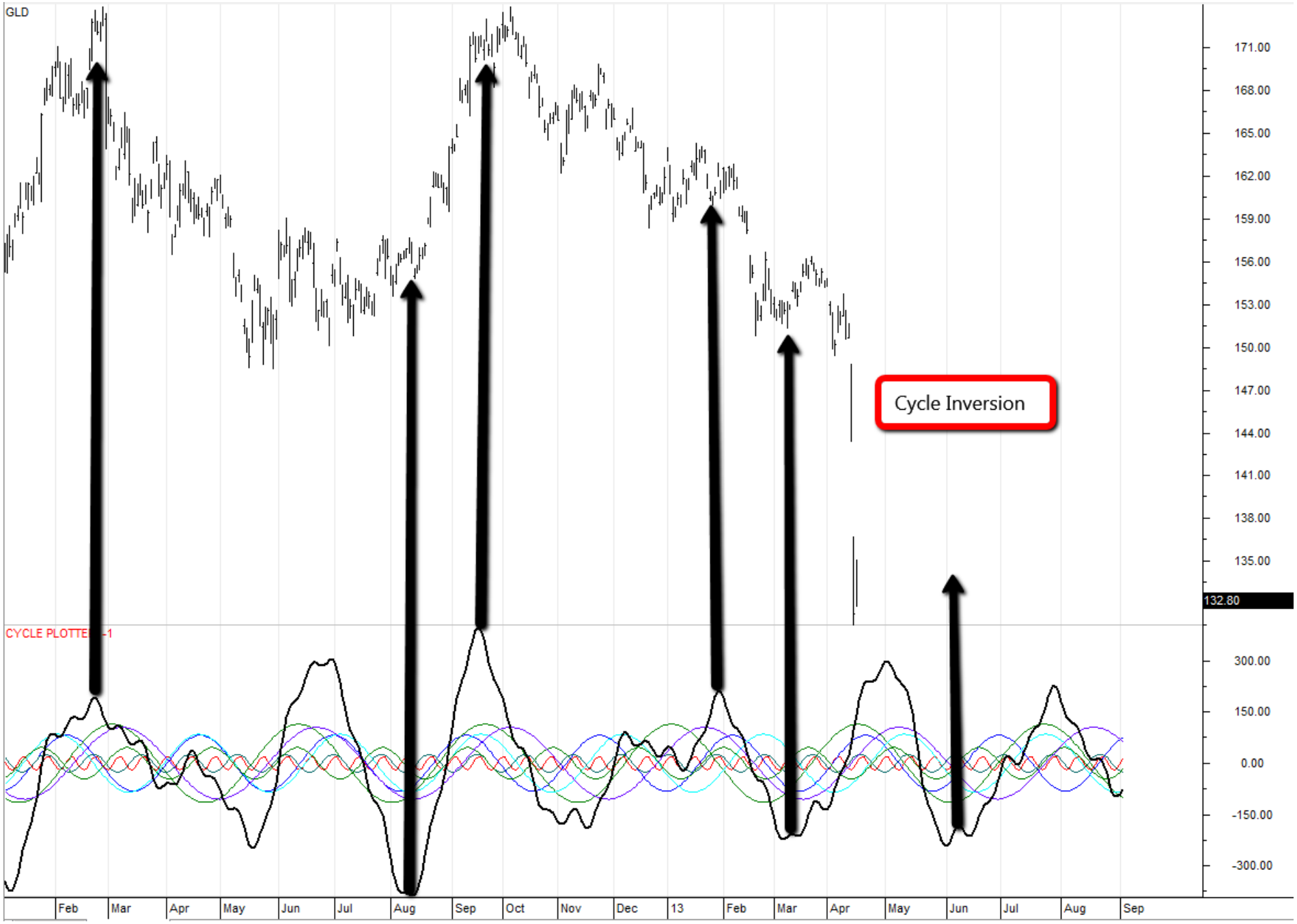
GLD
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Cycle Inversion
CYCLE PLOTTE
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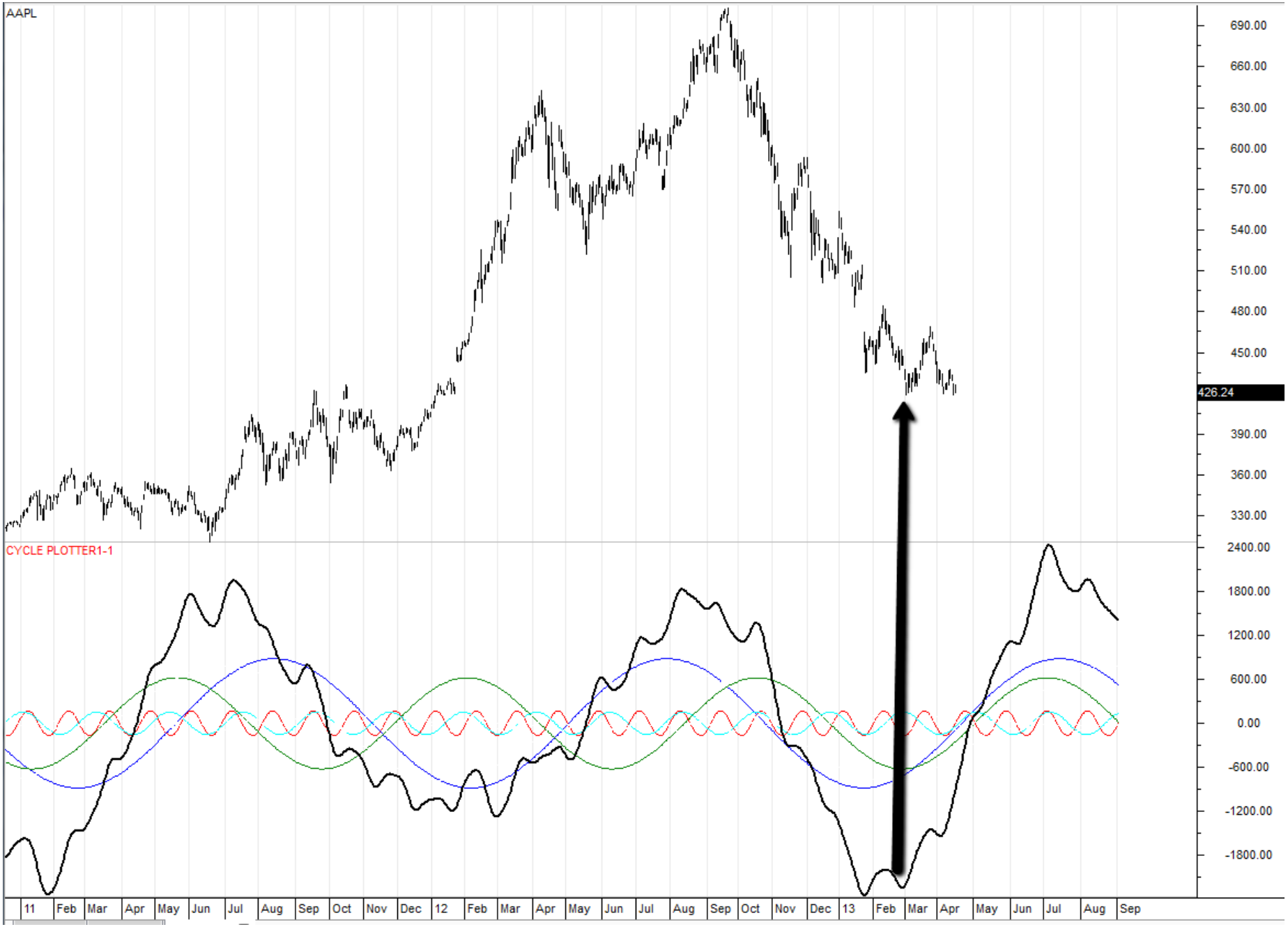
AAPL
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330.00
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-1800.00
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