

# JOHN EHLERS 2017 WORKSHOP SYLLABUS

## DATA

- What are cycles?
- Wave Power – decibels
- Fractals
  - Pink Noise
  - Swerling Noise
  - Spectral Dilation
- Sampled data theory
  - Aliasing
- Chart patterns
- Fibonacci series
- Number theory
  - Complex Variables
  - Trigonometry Review

## FILTER THEORY

- Transfer response
- Z Transforms

## FILTERS AND INDICATORS\*

- Finite Impulse Response Filters (FIR)
  - SMA
  - Binomial
  - Critical Period
  - Computational Lag
- Infinite Impulse Response Filters (IIR)
  - EMA
  - Critical Period
- High Pass Filters
- SuperSmoother
- Roofing Filter
- Automatic Gain Control (AGC)
- BandPass Filter
- Decyclers
- Filt11 Techniques
- Correlation
- Super PassBand Filter
- Swiss Army Knife
- Error Correcting Codes
- Reverse EMA
- Transforms
  - Fisher and Inverse Fisher
  - Hilbert
  - Peaking Filters

## **CYCLE MEASURING TECHNIQUES\***

- MESA (never before disclosed)
- DFT
- Autocorrelation Periodogram
- Bandpass Filter Bank
- Signal to Noise Ratio
- Dual Differentiator
- Homodyne Discriminator
- Phase Accumulation
- Pisarenko Harmonic Decomposition
- Goertzel

## **SWAMICHARTS INDICATORS\***

### **TRADING STRATEGY CONCEPTS**

- Key parameters
  - Excel Coin Toss Test
- Parameter Optimization
- Robustness
- Monte Carlo Simulation

### **UPUBLISHED ROBUST TRADING STRATEGIES (daily bars)\***

- MESA Phasor
- Correlation
- Correlation Angle
- Error Correcting
- Synthetic Sine Period & Phase
- Ultimate Angle

### **UNPUBLISHED ROBUST INTRADAY TRADING STRATEGIES\***

- Signal to Noise Module
- MESA Intraday V3
- MESA Sync
- Close Strength
- Correlation
- Correlation Angle
- Decycler
- Roof
- Ultimate

\*Indicator and Strategy Easy Language Code will be provided in electronic format