

# JOHN EHLERS 2018 WORKSHOP SYLLABUS

## NEW THIS YEAR:

- Zero Lag Filters
- Predictive Filters
- Chebyshev Filters
- Rocket RSI
- Recursive Median
- Deviation Scaling
- Deviation Scaled Adaptive Moving Average
- How to Evaluate Strategy Robustness
- How to Optimize a Strategy for Out-of-Sample performance
- Maximally Robust Intraday Strategy
- Correct Position Sizing

## 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)
- Deviation Scaling
- BandPass Filter
- Decyclers
- Filt11 Techniques
- MESA Predict
- Correlation
- Super PassBand Filter
- Swiss Army Knife
- Chebyshev Filter
- Error Correcting Codes
- Reverse EMA
- MyStochastic
- Rocket RSI
- Transforms
  - Fisher and Inverse Fisher
  - Hilbert
  - Peaking Filters

## **CYCLE MEASURING TECHNIQUES\***

- MESA (disclosed only at workshops)
- 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
- How to evaluate Robustness
- Monte Carlo Simulation

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

- MESA Phasor
- Complex Angle
- Correlation Angle
- Correlation
- Enigma
- MyRSI
- PassBand
- Ultimate Angle

### **UNPUBLISHED ROBUST INTRADAY TRADING STRATEGIES\***

- MESA Intraday V3
- 15min Bandpass
- 15min Chebyshev
- 15min Correlation Angle
- 15min Double Octave
- 15min Octave
- 15min Passband
- 15min SuperSmoother Difference

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