# IFTAUPDATE

International Federation of Technical Analysts

**Next Issue: March 2021**

**Submission Deadline:** February 15

**Education Lounge articles:** Send submissions to newsletter@ifta.org.

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a newsletter for the colleagues of the International Federation of Technical Analysts

# President's Report to Colleagues

Dear IFTA Colleagues,

The world is changing and so are we. This is my first introduction into the *IFTA Update* as president, and I can already look back to an unforgettable event this year. This year's IFTA Annual Conference was unique in many ways.

First of all, it was an online conference. Since IFTA's inception, the annual conference has always been organized by one of our local chapters and held in their country. But not this year.

Second, the IFTA Annual Conference was a solid part in financial industries schedule. This was still true, but we also welcomed many private analysts, investors, and traders to our conference.

Third, the number of registrants and attendees was much higher than usual. With a total of 4,909 registrants and 3,479 members in

the designated IFTA2020 Facebook group, IFTA has opened the doors to a large audience. Compared to previous conferences, this is a huge difference. Of course, there are two reasons for this: the conference was virtual and attendance was free of charge.

The fourth very surprising result of the data analysis of the conference was an unexpected regional shift. Most of us thought that Europe and the United States would deliver the majority of attendees, but the exact opposite is true. As the numbers show, the majority of attendees were located in Southeast Asia—namely Malaysia with 39% and Indonesia with 25%.

Surprisingly, analysis also showed that 86% of all registrants were IFTA nonmembers!

So, what is the conclusion from the analysis? Of course, the shift from the West to the East that we thought might happen one day is already there.

Also, we can learn that IFTA has an enormous potential not only in Asia, but especially amongst private analysts, investors, and traders.

And one last conclusion is obvious. As we welcomed 86% nonmembers, IFTA has a huge potential, once we become visible.

This all offers a more than positive outlook and raises one single question: What will happen if IFTA remains visible on a constant basis?

Let´s find out!

All the best,

Wieland Arlt, CFTe
IFTA President

# Member News

## American Association of Professional Technical Analysts (AAPTA)

### Update for December 2020

AAPTA held its 2021 election of officers and directors. The roster for the next year is:

Peter Mauthe – President
Scott Fullman – Vice President
Larry McMillan – Treasurer
Jeannette Young – Secretary
Tammy Trittschuh – Director
Bob Schott – Director
Denny Noss – Director

AAPTA is busy working on the IFTA/AAPTA global conference planned for October 7–9, 2021, in Philadelphia, Pennsylvania, USA, a historically significant city in the United States close to Washington, D.C., and New York City. We are working on an agenda designed for a meaningful exchange of ideas, informative speakers, and collaborative, memorable times together. With the experience of COVID, the change of leadership in Japan and the United States, and the coming change in leadership in Germany next year, world economies and markets promise more than a few financial surprises. Discover how your peers around the world are profiting from changing times at IFTA 2021.

Please plan to join all of us in Philadelphia. We will be delivering more details to you each month as our plans progress. The conference's landing page for information may be found at: www.iftaintheus.org. If you have suggestions for presentation topics, speakers, or sponsors you would like to hear and see, please email Peter Mauthe and/or Scott Fullman.



AAPTA has also started a series of member-only and member and prospective member brainstorming sessions. These sessions are held using a zoom meeting so screens may be shared for all to see.

## Società Italiana di Analisi Tecnica (SIAT)

**Over 200 experts have participated in SIAT QuanTech 2020.**

**#Authentic speaking, brain has more space than the sky**

The third edition of SIAT QuanTech took place online on Thursday, October 29, moderated by **Davide Bulgarelli,** SIAT president, and **Annabella D'Argento,** economic-financial journalist, illustrated "live" by **Jacopo Ziliotto,** and accompanied by narrator **Christian Iansante,** dubber, actor, and radio speaker.

**What role do artificial intelligence and machine learning play in our life and in the world of investments today? Are they winning the challenge with traditional asset management?**

The various speakers who alternated "on stage" have tried to answer this question, sharing experiences and research sectors sometimes very different from each other, similar to the "Renaissance studios" composed by artists, scientists, and craftsmen, which have always been characteristics of SIAT events.

In particular, asset managers have exposed how artificial intelligence is now used in cooperation and in support of human intelligence to manage portfolios and the "behind the scenes" of equity (including sectoral and thematic ones focused on big data, cloud, artificial intelligence, cybersecurity, and blockchain), bond, multi-asset (also balanced and defensive), alternative, collective, and passive strategies for which they are responsible, focusing on the methodologies for portfolios construction.

Specific insights were dedicated to:

- Socially responsible investments that integrate ESG (Environmental, Social and Governance) criteria in the portfolio stock picking, since they are recording a stable increase, both in terms of interest, and therefore of volumes and new regulations, and of yield;

- The market indices and benchmarks construction;

- Neuro-finance, neuroeconomics, and, more generally, to behavioral finance;

- Quantitative technical analysis with asset allocation models;

- The aerospace sector, a new emerging investment theme.

The various points of view have helped to enrich the audience and the whole investment management industry with precious insights to face the future challenges that are arising, also on financial markets, with the current

health emergency, which requires a forced paradigm shift but, at the same time, speeds up the technological innovation process.

Furthermore, the "Technical Analyst Awards 2020" were awarded to **Alessandro Venuti** (Open category) and **Lorenzo Risetti** (Thesis category). Professor **Achille Fornasini,** University of Brescia, was awarded the SIAT Honorary Member nomination and plaque because of his contribution to the spread of technical analysis, both in the academic and professional fields.

At the end of the event, **Alessandra Ceriani** and **Alessandro Mastrantuono** of Deloitte Consulting analyzed the impact and the role of Sustainable Finance Disclosure Regulation and of taxonomy to better seize the challenges and opportunities of this particular market phase, in which ESG factors are playing a key role within the proposition of financial intermediaries specialized in investment services.

The event was realized thanks to the support of the following sponsorships: Amun Limited, Degroof Petercam Asset Management, Deloitte, Exane Asset Management, Kempen Capital Management, T. Rowe Price, William O'Neil + Co, Aberdeen Asset Management, DWS, Franklin Templeton, Groupama Asset Management Sgr, HANetf, La Financière de l'Echiquier, Morningstar, Montpensier Finance, Nordea Asset Management, Oddo BHF Asset Management, Theam Quant Funds, Wellington Management, FactSet, First Trust Global Portfolios, Generali Investments, Natixis Investment Managers, Vanguard, WisdomTree.

SIAT President **Davide Bulgarelli,** immediately after the conference, commented:

*"Today I was on stage, but I was there to listen like the other colleagues. Personally I am happy with the many ideas I have heard, which make me go home enriched, and with much positive feedback received, even live. It means that I wasn't the only one who has seized the essence of these events, organized by colleagues for colleagues. The appointment is for next year with QuanTech 2021, Academy 2021 and Investment Management Observatory in collaboration with Deloitte Consulting: we have great surprises in store for all!".*

## The Society of Technical Analysts (STA, United Kingdom)

The STA was excited to host a special virtual fireside chat in November with *MARKETS WIZARD* author **Jack D. Schwager** and **Steven Goldstein,** co-founder of the AlphaMind podcasts, and will be replacing this year's Christmas Party with an online quiz.

The STA's October Part 2 exam was once again held online to resounding success. Well over 80% of the candidates passed, and we congratulate them all. We are delighted that this year we have two winners of the Bronwen Wood Memorial Prize 2020—Abdullah Abbasi and Victoria Scholar. The prize is awarded to the best STA Diploma Part 2 examination paper written each year if a score of 90% or above has been achieved. It can be awarded to more than one candidate as in this case.

Abdullah Abassi, a final year BSc Economics and Finance student at University College Dublin with a strong interest in the financial markets, says, *"The STA course was an excellent learning experience and I am delighted to be named joint winner of the 2020 Bronwen Wood Memorial Prize".*

Victoria Scholar works at IG Group as a TV presenter, producer, and market analyst. She previously worked in financial journalism at CNBC and Bloomberg, having started her career on the equity trading floor at Nomura. *"Having spent a lot of time focused on the fundamentals, the diploma taught me a whole new way of looking at the markets through technical analysis. I really enjoyed each week's lectures and getting to know the expert technical analysts who teach the course as well. The exams have been extremely helpful for my career and I am thrilled to be the joint winner of this year's Bronwen Wood Memorial Prize."*

The STA's advanced **Diploma Part 2 Course** that starts on 13 January 2021 will be held online via live Zoom webinar and will be fully interactive, with students being able to ask questions as they would in a classroom.  Any students unable to watch live will be able to catch up with a recording post-event; email the STA office if you have any questions. Provision has been made for candidates to sit for the exam(s) in their own personal space using Zoom. This means that students who live overseas will, for the first, time be able to attend this CISI accredited course and become a professional market technician.

The dates remain the same for 12 evening lectures and an exam preparation session, commencing Wednesday 13 January 2021, finishing Wednesday 31 March 2021. The sessions will be held from 6:30 pm–8:00 pm. Students will receive login details prior to the webinar. The Diploma Part 2 examination will take place during the daytime on Thursday 22 April 2021.

Visit https://www.technicalanalysts.com/education/sta-courses/#course2-details for more info.

We wish all our IFTA colleagues well during this challenging time. Keep in touch with us via our online blog and  follow us on twitter @STA_ORG, LinkedIn or like our Facebook page. ⚲

# Beyond the Z-Test: "GSA" Validation of a Trading System and Definition of "Persistence Validation Ratio"

## A quantitative technique for measuring the robustness of a model on unknown historical data.

*By Giovanni Trombetta*

### Classic validation architectures

In this article, we intend to demonstrate how it is possible to make the objective evaluation of a trading or investment model on unknown data. The challenge is not to use the best known statistical methods of comparison between populations, such as the T-Test, the Z-Test, the ANOVA Test, or the Chi-Square Test, which can be used with a couple of lines in Python, thanks to the "Scipy" library. Instead, we will opt for the definition of a set of proprietary indicators that are an evolution of those published in the book *Trading Strategies with Python,* published by Hoepli.

Typically, a system is designed and codified on the basis of historical data that summarize the behavior of one or more financial instruments. An important prerequisite is that the observation period is sufficiently long and that it contemplates different trend phases (uptrend and downtrend) and volatility (high and low variance). This is to avoid that particular market conditions can be transferred to the model we are synthesizing. Once the design phase is over, the same model is normally applied to new data, to assess whether it is capable of generating results consistent with the past. Only in the positive case is it possible to assume the "persistence" of the model and therefore apply for the operational phase in real money.

The one just described is a methodology that is based on the definition of a static architecture of "In Sample" and "Out of Sample," which draws its origins from the "training period" and "testing period" typical of the methods of Machine Learning.

There are several variations to adequately aggregate data, and it is possible, for example, to repeat and alternate periods of In Sample and Out of Sample in more complex structures (Figure 1).
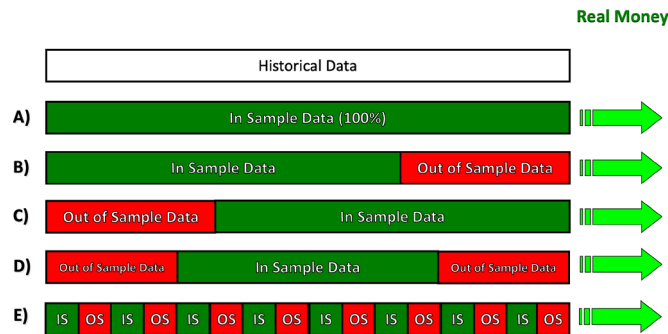


Figure 1: Validation Architectures

During the speech that I had the honor of giving in 2017 on the occasion of the IFTA Annual Conference in Milan, I presented the GSA architecture ("Gandalf Segmented Architecture" equivalent to type E architecture). This approach has made it possible to minimize the "incubation" period (if not eliminate it) and to free us from the particular type of market intercepted by the aggregate In Sample and Out of Sample periods (Figure 2).
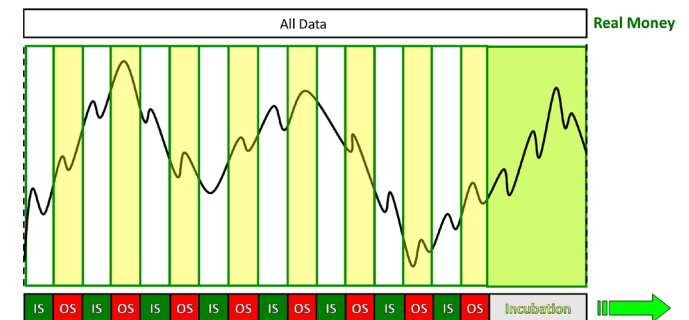


Figure 2: GSA Architecture of Type E

To understand this type of approach in detail, let's see a practical example: let's take the hourly series of the Gold Future Continuous and buy a contract when the maximum at 23 hours is exceeded (Figure 3). It is a crude breakout strategy, which is used to understand whether or not there is bullish market inertia on a particular financial instrument. We divide the available chronology (from 1 January 2007 to 31 October 2020) in eight In Sample periods of 5,000 bars each and in as many Out of Sample periods (Figure 3).

*Beyond the Z-Test   continued*

# Education Lounge

```
In Sample:
0 2007-01-02 00:00:00 5000 2007-11-02 12:00:00
10000 2008-09-08 15:00:00 15000 2009-07-14 08:00:00
20000 2010-05-19 12:00:00 25000 2011-03-22 20:00:00
30000 2012-01-26 09:00:00 35000 2012-11-28 23:00:00
40000 2013-10-10 14:00:00 45000 2014-08-18 21:00:00
50000 2015-06-24 13:00:00 55000 2016-04-29 04:00:00
60000 2017-03-03 17:00:00 65000 2018-01-08 23:00:00
70000 2018-11-12 13:00:00 75000 2019-09-18 17:00:00
80000 2020-07-24 06:00:00 85000 2020-09-15 04:00:00

Out of Sample:
5000 2007-11-02 12:00:00 10000 2008-09-08 15:00:00
15000 2009-07-14 08:00:00 20000 2010-05-19 12:00:00
25000 2011-03-22 20:00:00 30000 2012-01-26 09:00:00
35000 2012-11-28 23:00:00 40000 2013-10-10 14:00:00
45000 2014-08-18 21:00:00 50000 2015-06-24 13:00:00
55000 2016-04-29 04:00:00 60000 2017-03-03 17:00:00
65000 2018-01-08 23:00:00 70000 2018-11-12 13:00:00
75000 2019-09-18 17:00:00 80000 2020-07-24 06:00:00
```

**Figure 3: In Sample and Out of Sample Periods**

We have in fact eliminated the incubation period, associating the entire validation of the model with the possibility of obtaining congruent results in In Sample and Out of Sample.

## Analysis of the aggregate period in In Sample

We code the strategy using a backtest engine written in Python (Figure 4).

```python
 1  COSTS = 0
 2  INSTRUMENT = 2  # 1: equity, 2: future, 3: crypto/forex
 3  TICK = 0.1
 4  BIGPOINTVALUE = 100
 5  QUANTITY = 1
 6  DIRECTION = "long"
 7  ORDER_TYPE = "stop"
 8
 9  MAX_INTRADAY_OPERATIONS = 1
10
11  TIME_EXIT = 10
12
13  enter_level = dataset.high.rolling(23).max().shift(1)
14
15  enter_rules = dataset.setup_period_IS == 1
16
17  exit_rules = (dataset.hour == 22) & (dataset.minute == 0)
```

**Figure 4: Python Strategy Code**

We close the operations at the opening of the 23rd bar (exchange time), or after 10 hours from the entrance. We do not allow more than one trade per day. Figure 5 details the main performance report metrics.

```
Performance Report Version 20201006 - Copyright 2020 - by Ganda'

Profit:                     88520.0
Operations:                 1124
Average Trade:              78.75

Profit Factor:              1.3
Gross Profit:               379900.0
Gross Loss:                 -291380.0

Percent Winning Trades:     51.33
Percent Losing Trades:      48.67
Reward Risk Ratio:          1.24

Max Gain:                   8270.0   in date  2008-09-17 21:00:00
Average Gain:               658.41
Max Loss:                   -5870.0  in date  2008-10-10 14:00:00
Average Loss:               -539.59

Avg Open Draw Down:         -3232.58
Max Open Draw Down:         -15980.0

Avg Closed Draw Down:       -3558.04
Max Closed Draw Down:       -15180.0

Avg Delay Between Peaks:    301.67
Max Delay Between Peaks:    19412

Avg Time in Trade:   9
Max Time in Trade:   10.0
Min Time in Trade:   1.0

Calmar Ratio:  6.26
Calmar Ratio Yearly:   0.71
Sharpe Ratio:  3.22
Sharpe Ratio Yearly:  8.89
Omega Ratio:   1.3
Kestner Ratio:  0.31

Trades Standard Deviation:  899.7889612210829
Equity Standard Deviation:  27489.607077072156
```

**Figure 5: Metrics of the performance report in the aggregate In Sample period**

# Education Lounge

The first data tell us of a positive dynamic, which is also confirmed on a graphic level (Figure 6) by a growing equity line (our analysis remains qualitative at this stage).
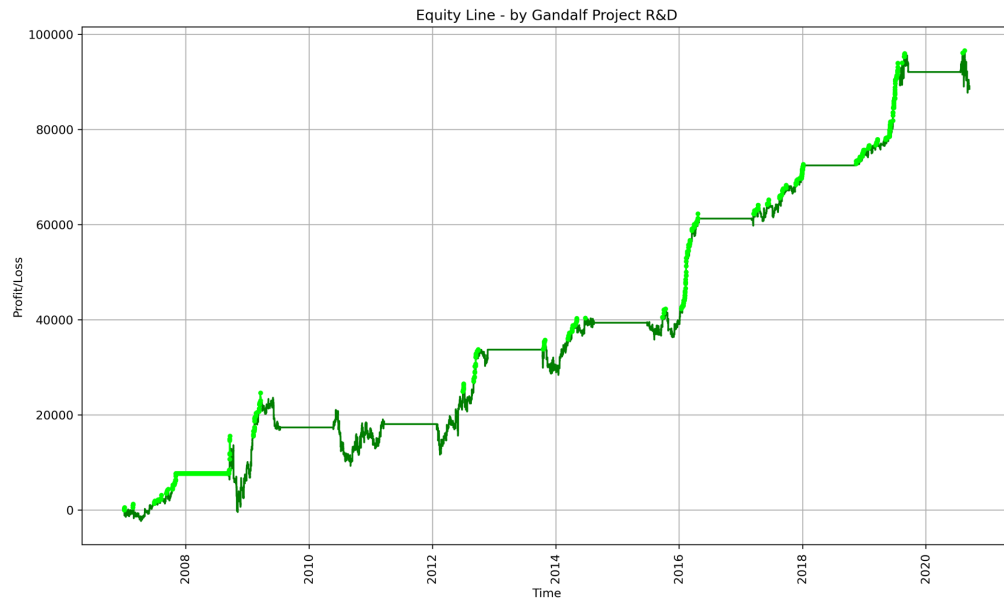


**Figure 6: Open Equity Line in the Aggregate In Sample Period**

Note how the strategy can only work at regular intervals defined by the In Sample periods of the GSA architecture. We now represent the trade distribution obtained in a histogram (Figure 7).
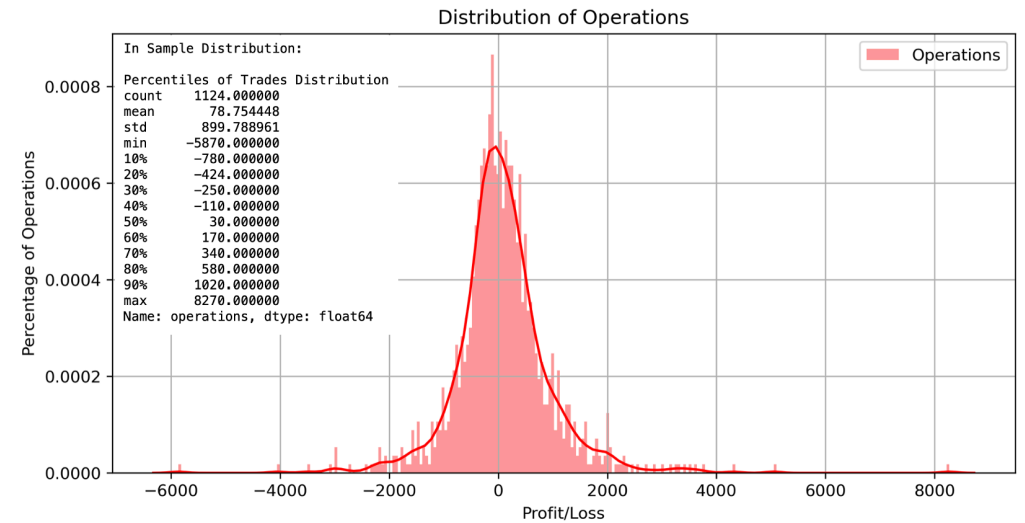


**Figure 7: Trade Distribution in the Aggregate In Sample Period**

This will be our footprint to compare against the Out of Sample distribution. The effectiveness of the strategy in In Sample is evidenced by the slight asymmetry in the positive territory of the curve itself, and by the positive value of the 50th percentile.

*Beyond the Z-Test   continued*

# Education Lounge

## Analysis of the aggregate period in Out of Sample

We therefore proceed to evaluate the same strategy in Out of Sample and obtain the performance metrics and the equity line in sequence (Figure 8 and Figure 9).

```
Performance Report Version 20201006 — Copyright 2020 — by Gandal

Profit:                 94420.0
Operations:             1077
Average Trade:          87.67

Profit Factor:          1.29
Gross Profit:           415040.0
Gross Loss:             -320620.0

Percent Winning Trades: 53.11
Percent Losing Trades:  46.89
Reward Risk Ratio:      1.14

Max Gain:               6120.0  in date  2020-03-23 20:00:00
Average Gain:           725.59
Max Loss:               -5300.0   in date  2011-10-04 13:00:00
Average Loss:           -643.82

Avg Open Draw Down:     -6057.39
Max Open Draw Down:     -18050.0

Avg Closed Draw Down:   -5895.61
Max Closed Draw Down:   -17560.0

Avg Delay Between Peaks: 368.65
Max Delay Between Peaks: 21314

Avg Time in Trade:  9
Max Time in Trade:  10.0
Min Time in Trade:  1.0

Calmar Ratio:  8.92
Calmar Ratio Yearly:  1.14
Sharpe Ratio:  3.77
Sharpe Ratio Yearly:  6.36
Omega Ratio:  1.29
Kestner Ratio:  0.11

Trades Standard Deviation:  1005.2604437565312
Equity Standard Deviation:  25038.185381085157
```

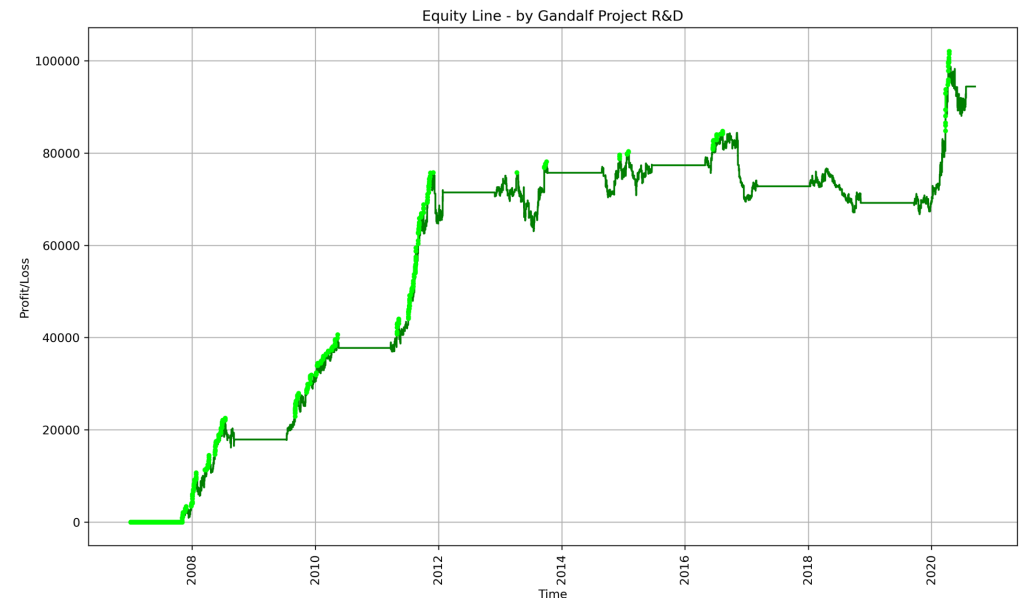**Figure 8: Metrics of the Performance Report in the Aggregate Out Sample Period**



**Figure 9: Open Equity Line in the Aggregate Out of Sample Period**

The curve appears more degraded than the previous one in the 2012–2019 interval. Still, some key metrics seem to have improved: the average trade, which guarantees coverage of fixed costs, is wider (a system on Gold Future must guarantee an average trade of over $100 per contract, but here we are facing a raw rule, without the aid of any operational filter).

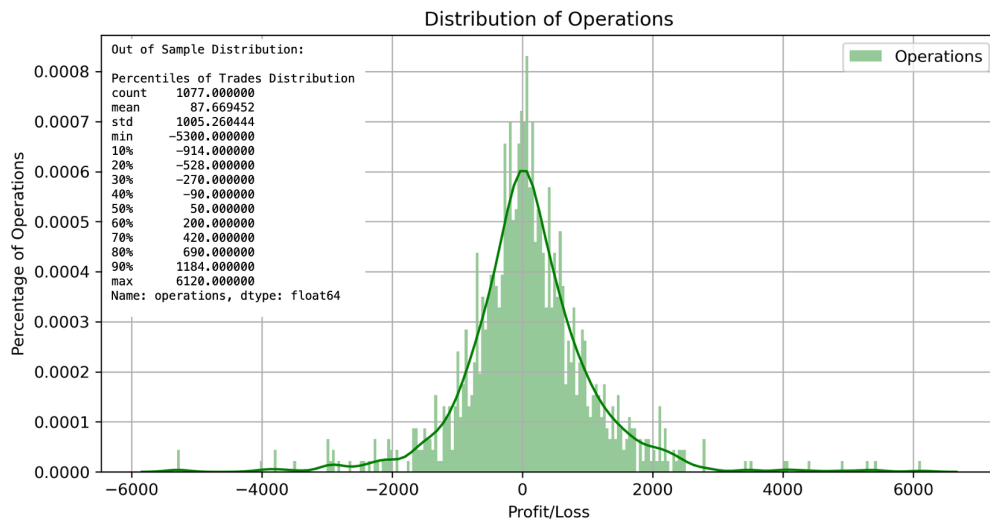We draw the trade distribution also in this second case (Figure 10).

*Beyond the Z-Test   continued*

# Education Lounge



**Figure 10: Trade Distribution in the Aggregate Out of Sample Period**

From a first visual analysis, the distribution obtained seems to retrace the characteristics of that relating to the operations in In Sample.

## Comparative analysis

At this point, we are able to overlay the two distributions obtained (Figure 11).
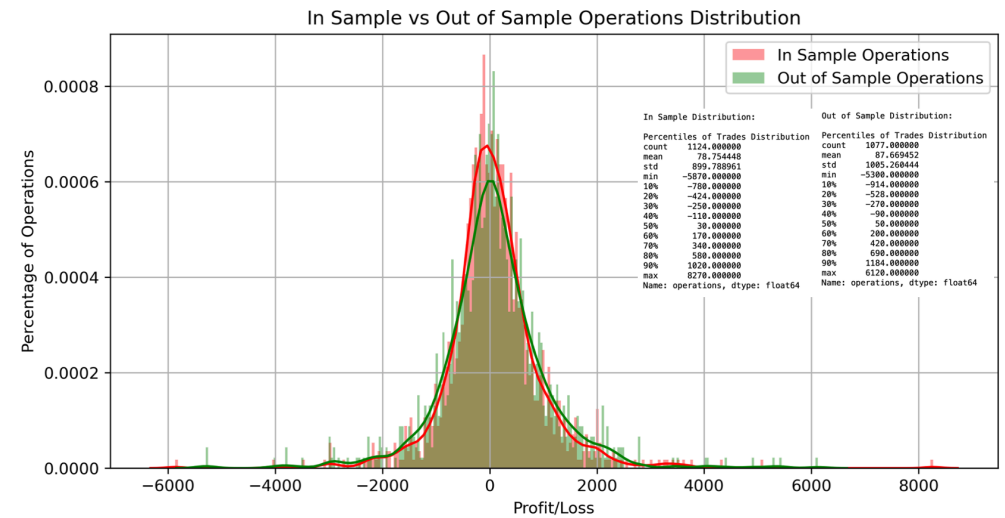


**Figure 11: Trade Distribution in the Aggregate In Sample and Out of Sample Periods**

The two distribution bells seem almost overlapping, and this is certainly a good sign that tells us how the strategy has not changed behavior in the two aggregate periods— a sign that we have probably intercepted a causal dynamic that drives market inertia after each "level jump."

**But how to make this comparison numerical, in order to untangle ourselves even in cases where such evidence is less immediate?**

To answer this question, as mentioned at the beginning of this article, let's move away from known statistical methodologies and try to take a new path. We examine the distribution of the trades in the two intervals and determine the percentile thresholds (for example on 11 divisions). At this point we compare each In Sample percentile threshold with the corresponding one in Out of Sample and record how many times the second threshold is lower than the first and vice versa. Finally, we add up these counters and calculate their percentage of the total samples (in this case 11). The ratio between the first indicator and the second will give us a value whose center of equilibrium will be the unit value. In formulas:

**Gandalf Persistence Distribution Index (GPDI_IS): GPDI_IS**
**Gandalf Persistence Distribution Index (GPDI_OOS): GPDI_OOS**
**Gandalf Persistence Distribution Ratio (GPDR): GPDI_OOS / GPDI_IS**

# Education Lounge

```
[0.  0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1. ]

0.0 -5870.0 -5300.0 0 1
0.1 -780.0 -914.0 1 1
0.2 -424.0 -528.0 2 1
0.3 -250.0 -270.0 3 1
0.4 -110.0 -90.0 3 2
0.5 30.0 50.0 3 3
0.6 170.0 200.0 3 4
0.7 340.0 420.0 3 5
0.8 580.0 690.0 3 6
0.9 1020.0 1184.0 3 7
1.0 8270.0 6120.0 4 7

Gandalf Persistence Distribution Ratio (GPDR): 1.75
Gandalf Persistence Distribution Index (GPDI_OOS): 63.64 %
Gandalf Persistence Distribution Index (GPDI_IS): 36.36 %
```

**Figure 12: Gandalf Persistence Distribution Ratio with 0% Tolerance and 11 Samples**

In our case, we obtain a GDPR of 1.75 which testifies to a good "persistence of the results" and confirms the first qualitative evaluation made on the "shape" of the distributions. Any value equal to or greater than the unit, in fact, is the statistical proof that the swarm of trades in Out of Sample has a similar or better distribution than that in In Sample.

Since a trade model is obtained by modeling both the signal and the noise component of the history, we allow a percentage of degradation between the In Sample and Out of Sample performances, based on the fact that the noise component will tend to vary from period to period. Let's try to take this factor into account in our calculations by changing the GDPR function. We set a tolerance of 10% on the performance of the In Sample and recalculate all the metrics.

```
[0.  0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1. ]

0.0 -5870.0 -6457.0 -5300.0 0 1
0.1 -780.0 -858.0 -914.0 1 1
0.2 -424.0 -466.4 -528.0 2 1
0.3 -250.0 -275.0 -270.0 2 2
0.4 -110.0 -121.0 -90.0 2 3
0.5 30.0 27.0 50.0 2 4
0.6 170.0 153.0 200.0 2 5
0.7 340.0 306.0 420.0 2 6
0.8 580.0 522.0 690.0 2 7
0.9 1020.0 918.0 1184.0 2 8
1.0 8270.0 7443.0 6120.0 3 8

Gandalf Persistence Distribution Ratio (GPDR): 2.67
Gandalf Persistence Distribution Index (GPDI_OOS): 72.73 %
Gandalf Persistence Distribution Index (GPDI_IS): 27.27 %
```

**Figure 13: Gandalf Persistence Distribution Ratio with 10% tolerance and 11 Samples**

The GDPR went from 1.75 to 2.67, with over 72% of the percentiles sampled in Out of Sample higher than In Sample. As a last test, we try to double the sampling frequency (21 percentile samples).

*Beyond the Z-Test   continued*

# Education Lounge

```
[0.   0.05 0.1  0.15 0.2  0.25 0.3  0.35 0.4  0.45 0.5  0.55 0.6  0.65
 0.7  0.75 0.8  0.85 0.9  0.95 1.  ]

0.0 −5870.0 −6457.0 −5300.0 0 1
0.05 −1168.5 −1285.35 −1372.0 1 1
0.1 −780.0 −858.0 −914.0 2 1
0.15 −580.0 −638.0 −690.0 3 1
0.2 −424.0 −466.4 −528.0 4 1
0.25 −340.0 −374.0 −390.0 5 1
0.3 −250.0 −275.0 −270.0 5 2
0.35 −180.0 −198.0 −190.0 5 3
0.4 −110.0 −121.0 −90.0 5 4
0.45 −50.0 −55.0 −20.0 5 5
0.5 30.0 27.0 50.0 5 6
0.55 100.0 90.0 130.0 5 7
0.6 170.0 153.0 200.0 5 8
0.65 259.5 233.55 300.0 5 9
0.7 340.0 306.0 420.0 5 10
0.75 452.5 407.25 540.0 5 11
0.8 580.0 522.0 690.0 5 12
0.85 760.0 684.0 906.0 5 13
0.9 1020.0 918.0 1184.0 5 14
0.95 1478.5 1330.65 1672.0 5 15
1.0 8270.0 7443.0 6120.0 6 15


Gandalf Persistence Distribution Ratio (GPDR): 2.5
Gandalf Persistence Distribution Index (GPDI_OOS): 71.43 %
Gandalf Persistence Distribution Index (GPDI_IS): 28.57 %
```

**Figure 14: Gandalf Persistence Distribution Ratio with 10% Tolerance and 21 Samples**

In the latter case, the GPDR goes from 2.67 to 2.5. In general, as we increase the sampling frequency, we also increase the precision of our analysis, up to the extreme case where the samples equal or exceed the number of trades of the distribution. The recommendation is to never sample more than 1/10 of the total number of trades.

We have therefore found a statistical method to correctly compare the In Sample and Out of Sample trade distributions: values below unity will warn us for suspicion of over-fitting on the In Sample period, while a value greater than unity will testify to a property of robustness of the results obtained. The analysis could continue, varying the trading variables and producing multiple trade pairs in In Sample and Out of Sample. For each set we will be able to calculate the persistence metrics, measuring the variance of all the GDPRs.

## Putting the pieces together

We are finally able to design the project architecture: In Sample training periods in yellow and the Out of Sample testing periods in green. Also in green, the equity line of the strategy applied to the entire period.
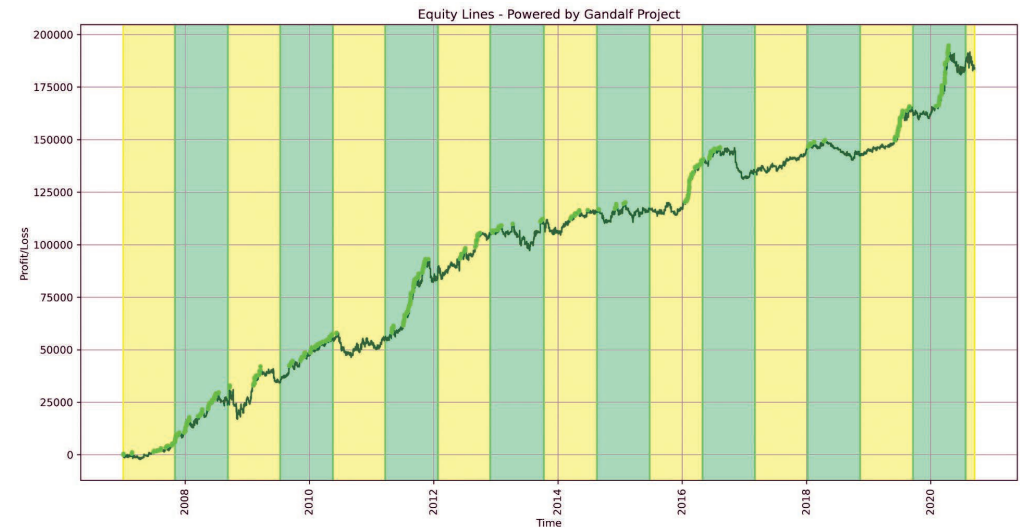


**Figure 15: Equity Line of the Strategy for the Entire Historical Period**

The trend is growing monotonous without particular and prolonged variations in behavior, testifying what we have achieved with the GPDR. Figure 16 shows the same curve with the associated trend of the Gold Future.
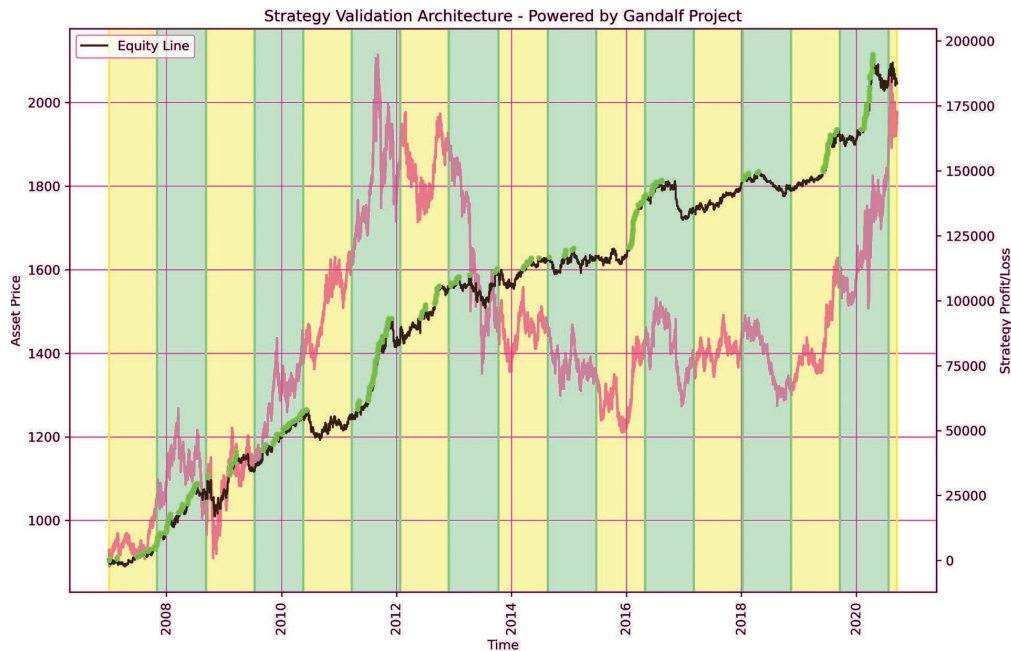
*Beyond the Z-Test   continued*

# Education Lounge



**Figure 16: Equity Line of the Strategy for the Entire Historical Period and Gold Futures Continuous Chart**

*Giovanni Trombetta, CFTA, is the head of research and development on the Gandalf Project. He is an electronics engineer with experience as a radio access network engineer, an expert in radiant systems and artificial intelligence algorithms, a professional trading systems developer, a quant trader, and a trainer.*

*Giovanni has been a Professional Associate and a member of the Scientific Committee in SIAT since 2016 and became an IFTA board member in October 2019. In 2017, he was a speaker at the IFTA Annual Conference in Milan. Giovanni is the founder and chief investment officer of Rocket Capital Investment, an innovative startup based in Singapore. His articles can be found on* Milano Finanza, *in* Traders *magazine, and in the international journal* Technical Analysis of Stocks & Commodities. *He is about to publish his first book on Python and Quantitative Analysis for Hoepli.*

The bullish strategy manages to be profitable both during the uptrends and during the downtrends of the Gold. The one described is an unconventional validation methodology called GSA (Gandalf Segmented Architecture), endorsed by the comparison of trade distributions in In Sample and Out of Sample, using the GPDR indicator. The use of this indicator is possible with all validation configurations other than the GSA (including Walk Forward Analysis). All the tables are produced with Python, and the elaborations are obtained with a backtesting engine coded with the Pandas, Numpy, and Numba libraries.

Hoping to have provided a useful contribution, we wish everyone good work. ▐

# Congratulations New CFTes!

Mahmoud Abd ELshafy (ESTA)
Ahmed Abdellatif Mohammed (ESTA)
Hassan Abdullah (STA)
Ehab Ahmad Elmashad (ESTA)
Ayman Amr Hussien (ESTA)
Kleanthis Avraamides (STA)
Ahmed Baher Metawea (ESTA)
Khairul Akmal Bin Ab Kadir (MATA)
Mohammad Azman Bin Abdul Subhan (MATA)
Ahmad Shazwi Bin Hamim (MATA)
Dr. Muhammad Arif Bin Mokhtar (STA)
Marc Borghans
Hisham Elsayed Elnozahi (ESTA)
Mohamed Fawzy ElSayed Ali AbdAlla (ESTA)
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Pooya William Khamooshi (STA)

Wael M AbdelSabour (ESTA)
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Ismail Mahmoud Abdul Meguid (ESTA)
Michael Michaelides (STA)
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Zachary Moore
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Giorgos Nathanael (STA)
Hebatallah Osama Salem (ESTA)
Laplusrada Pensuk
Stelios Photiou (STA)
Taro Rajpal
Maha Saeed Ragab (ESTA)
Jeevainderan Sagathevan (STA)
Hazem Salah El Din Mohamed (ESTA)
Ahmed Samy Abou El Ela (ESTA)
Mohamed Sayed Mahmoud (ESTA)
Robert Szucs (STA)
Andreas Thrasyvoulou (STA)
John Tuohy (STA)
Mohamed Wagih Abdel Bary (ESTA)
Asanka Weeratunge (STA)
Hsiao De Yeh (STA)

# MFTA and CFTe Exam Dates

## Certified Financial Technician (CFTe)—Level I

| Date | Offered Year-round |
|---|---|
| See our website for further instructions www.ifta.org/certifications/registration/ | |
| Syllabus and Study Guide www.ifta.org/public/files/publication-downloads/IFTA_CFTe_Syllabus.pdf | |

## Certified Financial Technician (CFTe)—Level II

| | Exam 1 | Exam 2 |
|---|---|---|
| Exam dates | 22 Apr 2021 | TBA Oct 2021 |
| Registration deadline | 5 Mar 2021 | TBA Sept 2021 |
| Register at www.ifta.org/register/cfte2.php | | |
| Syllabus and Study Guide www.ifta.org/public/files/publication-downloads/IFTA_CFTe_Syllabus.pdf | | |
| For more information on the CFTe program, visit www.ifta.org/certifications. | | |

## Master of Financial Technical Analysis (MFTA)

| | Session 1 | Session 2 |
|---|---|---|
| Alternative Path Pre-Application Deadline | 28 Feb 2021 | 31 July 2021 |
| Application/Outline Deadline | 2 May 2021 | 2 Oct 2021 |
| Paper Deadline | 15 Oct 2021 | 15 Mar 2022 |
| (Session 1) Register at www.ifta.org/register/mfta_alt_session1.php | | |
| (Session 2) Register at www.ifta.org/register/mfta_alt_session2.php | | |

# Congratulations New and Re-elected IFTA Board Members
## (Term October 2020–October 2023)

### Wieland Arlt, CFTe, IFTA President
**Nominated by: VTAD (Germany)**

Wieland Arlt is a trader, trading coach, and trainer who conveys trading approaches that are easy to understand and implement. He is the author of the bestselling books *Risk and Money Management – Simplified* (German), *Risk and Money Management for Day and Swing Trading* (English), and *55 Reasons to Become a Trader* (German), as well as numerous articles in leading financial magazines. He is a sought-after speaker and expert at trader fairs.

Wieland is a board member of the Vereinigung Technischer Analysten Deutschlands e.V. and is in charge of the chapter in Hamburg. He holds a degree in economics.

### Dr. Gregor Bauer, VTAD, IFTA Examination Director
**Nominated by: VTAD (Germany)**

Dr. Gregor Bauer works as an independent asset manager for private clients and companies in Germany. He is also the president of the German Association of Technical Analysts (www.VTAD.de). Gregor authored two books on technical analysis and covers a regular technical outlook on German TV. He also writes articles on a regular basis for leading financial newspapers. He is specialized in applying advanced candlestick techniques in combination with traditional western techniques.

Gregor holds lectures on portfolio management and technical analysis at various elite universities in Germany and Liechtenstein and runs seminars and workshops on technical analysis for institutional investors.

Together with a partner, he runs a successful, computer-based, medium-term ETF trading system, which is now also open for institutional investors.

### Yukitoshi Higashino, MFTA, IFTA Director
**Nominated by: NTAA (Japan)**

Yukitoshi Higashino is chief strategist of the Equity Research Team at DZH Financial Research, an investment information service arm located in Tokyo of Shanghai DZH Limited Group. He leads development of technical strategies for client securities firms dealing in futures, ETFs, and CFDs. His main responsibilities range from analysis of major indices of the Asian and world markets and can extend to individual stocks. Prior to this, he was a stock lending trader for foreign securities houses and a treasury stock trader for Mizuho Trust Bank. He was also an equity trader and a market analyst at a securities firm.

For many years, he has served as one of NTAA's board members and acted as an IFTA liaison, and he has attended several past IFTA conferences. Currently, he serves as NTAA's vice chair and as general manager of the CFTe Education Department. He has served as one of IFTA's Education Committee members in the past and made presentations at IFTA conferences in Vancouver, Lugano, Berlin, and Cairo.

### Jeanette Young, CFP®, CMT, MS, CFTe, IFTA VP of Americas, 2021 Conference Chair
**Nominated by: AAPTA (USA)**

Jeanette Young has been a Wall Street professional since 1981, when she began her professional career with Thomson McKinnon Securities. Her career includes portfolio management, syndication, option strategist, hedger, operations principle, bond principal, pit trader, and general market trader. Jeanette worked for the New York Board of Trade and later ICE, where she wrote, produced, and aired two daily market reports covering the financials, currencies, and softs. She has been a frequent guest on FOX, CNBC, Bloomberg, Yorba TV, CNN, and others. She was a market maker in the FINEX ring (Russell 2000 ring) and became an expert hedger.

Jeanette was the first director of the CMT program for the Market Technicians Association and is the past president of the American Association of Professional Technical Analysts, where she continues to serve on the board of directors. She is the author of the *Option Queen Letter,* a weekly newsletter, and is a member of ICE, COMEX, and CHX holdings. She is also a member of the Adelphi University Presidents Counsel.

# IFTA 2020 Conference Recordings

The IFTA conference recorded sessions are now available online for member colleagues (members of IFTA societies). The following recorded sessions are available.

1. **Do Market's Face a Potential "Minsky" Moment Collapse?,** Ron William

2. **Active Versus Passive Indexing,** John Bollinger

3. **System Thinking – The Holy Grail to Dealing with a Pandemic or any Other Crisis,** Dr. Van K. Tharp

4. **How to Catch the Big Swings with One Simple Strategy,** Wieland Arlt

5. **Back-Testing Relative Performance and Evaluating Technical versus Macroeconomic and Corporate Research,** Tim McCullough

6. **Elliott Waves – Bringing the Theory into the Daily Trading,** Rüdiger Born

7. **Incorporating Wyckoff Method Analysis into Portfolio Construction,** Roman Bogomazov

8. **What Makes for World Champion Traders?,** Larry Williams

9. **A Treasury of Wall Street Wisdom – The Wisdom of Past Master Market Technicians Applied to the Future,** Linda Raschke

10. **The Power of Cross Asset Confirmations,** Jean-François Owczarczak

11. **Building a Money Printing Machine with AI,** Raul Glavan

12. **Better Investing Using Market Effects,** Roland Jegen

13. **Spot Market Trends with Heikin Ashi,** Stefano Gianti

14. **The End of Alpha – Risk Factors Theory Revisited,** Thierry Bechu

15. **The Supercycle Top and Deflation,** Murray Gunn

16. **Successfully trading Options in Volatile Markets,** Dr. Gregor Bauer

17. **Power Hour Team by AATI – Smart Trading with Technical Analysis,** AATI (Indonesia)Team

18. **How to profit $30,000 from Gold trading with Sun Capricorn Cycle and 1.618 Divergence Fibonacci,** Gema Goeyardi

19. **Momentum Investment Using ETFs,** Dr. Bruce Vanstone

20. **Time-Series Analysis of Japanese Mutual Fund Performance – Considerations on Asset Flow and Return,** Koki Nozawa

21. **How to Build Investment Strategies with AI and Machine Learning,** Dr. Kei Nakagawa

22. **Shall we Focus on Bitcoin in an Uncertain and Unstable World Environment?,** Dr. Hiwon Yoon

23. **Using Volatility to Determine the Trend of Securities and Markets,** Mathew Verdouw

24. **Sequence of Volume Spread Analysis – A Bar Counting Method of Potential Reversal,** Yoan Zhang

25. **Trade What You See, Not What You Believe,** Daryl Guppy ⚑

# Calendar-at-a-Glance

| Date | Topic | Host | Speaker | Location | Time | Contact |
|------|-------|------|---------|----------|------|---------|
| Monthly | Presentations from local and international speakers on a comprehensive range of topics (e.g., sharemarket, CFDs, options, futures, FOREX trading, methodologies, money management, psychology). | STANZ | Varies | Varies, or online | Varies | https://stanz.co.nz/ |
| Monthly | Monthly Meetings are held monthly in nine cities across Australia. All monthly meetings are free to members. Visitors are welcome to attend. Bookings are not required. Visitors are welcome, first visit free. | ATAA | Varies | Varies, or online | Varies | https://ataa.asn.au/ |
| Monthly | Monthly Chapter leaders and their volunteer members serve as ambassadors for the CSTA and plan social and educational events for the area. Events include presentations by industry professionals and technical analysis experts and peer learning gatherings. Chapters also play a vital role in their communities by connecting individuals and promoting technical analysis. | CSTA Chapters (Canada) | Varies | Varies, or online | Varies | https://csta.org/ |
| Monthly | Monthly Meetings & Events: The STA holds monthly meetings in London, usually on the second Tuesday of every month, except for a summer break in August. | STA | Varies | Online or One Moorgate Place, Chartered Accountants Hall, 1 Moorgate Place London | Varies | https://www.technicalanalysts.com/ |
| **2021** | | | | | | |
| Jan | 12 STA (UK) Monthly Meeting | STA/ACI UK | Fundamentals vs Technical Analysts Panel | Webinar | 6.30pm | https://www.technicalanalysts.com/meetings/ |
| Feb | 9 STA (UK)Monthly Meeting | STA (UK) | To be confirmed | Webinar | 6.30pm | https://www.technicalanalysts.com/meetings/ |
| | 15 IFTA Update submission deadline for all news content (mid-March release) | IFTA | NA | NA | NA | admin@ifta.org; https://ifta.org/ |
| | 28 Master of Financial Technical Analysis (MFTA), Alternative Path, Session 1 application deadline | IFTA | NA | NA | NA | admin@ifta.org; https://ifta.org/ |
| Mar | 1 STA (UK) Diploma, Part 1 | STA (UK) | NA | Online | All day | https://www.technicalanalysts.com/education/exam-information/ |
| | 5 Deadline to register for Certified Financial Technician (CFTe) II held on 22 April 2021 | IFTA | NA | NA | NA | admin@ifta.org; https://ifta.org/ |
| | 9 STA (UK) Monthly Meeting | STA (UK) | To be confirmed | Online | 6.30pm | https://www.technicalanalysts.com/meetings/ |
| | 15 Master of Financial Technical Analysis (MFTA), Session 2 paper deadline | IFTA | NA | NA | NA | admin@ifta.org; https://ifta.org/ |
| Apr | 13 STA (UK) Monthly Meeting | STA (UK) | To be confirmed | Online | 6.30pm | https://www.technicalanalysts.com/education/exam-information/ |
| | 22 Certified Financial Technician (CFTe) Level II Examination | IFTA | NA | NA | NA | admin@ifta.org; https://ifta.org/ |
| | 22 STA (UK) Diploma, Part 2 | STA (UK) | NA | Online | All day | https://www.technicalanalysts.com/meetings/ |

## Calendar continued

| May | 1 | Certified Financial Technician (CFTe) Level II - registration opens for October examination through IFTA website. | IFTA | NA | NA | NA | admin@ifta.org; https://ifta.org/ |
|---|---|---|---|---|---|---|---|
| | 2 | Master of Financial Technical Analysis (MFTA) Session 1 application, outline and fees deadline | IFTA | NA | NA | NA | admin@ifta.org; https://ifta.org/ |
| | 13 | STA (UK) Monthly Meeting | STA (UK) | To be confirmed | Webinar | 6.30pm | https://www.technicalanalysts.com/meetings/ |
| | 15 | *IFTA Update* submission deadline for all news content (mid-June release) | IFTA | NA | NA | NA | admin@ifta.org; https://ifta.org/ |
| | 31 | *IFTA Journal* Call for Paper submission deadline | IFTA | NA | NA | NA | admin@ifta.org; https://ifta.org/ |
| June | | *No events scheduled at this time* | | | | | |
| July | 31 | Master of Financial Technical Analysis (MFTA) Alternative Path, Session 2 application deadline | IFTA | NA | NA | NA | admin@ifta.org; https://ifta.org/ |
| Aug | 15 | *IFTA Update* submission deadline for all news content (mid-September release) | IFTA | NA | NA | NA | admin@ifta.org; https://ifta.org/ |
| Sept | | *No events scheduled at this time* | | | | | |
| Oct | 2 | Master of Financial Technical Analysis (MFTA), Alternative Path, Session 2 application deadline | IFTA | NA | NA | NA | admin@ifta.org; https://ifta.org/ |
| | 7–9 | IFTA 2021 Annual Conference–Hosted by AAPTA (USA) | IFTA/AAPTA | Varies | Philadelphia, PA USA | TBA | admin@ifta.org; https://ifta.org/ |
| | 15 | Master of Financial Technical Analysis (MFTA), Session 1 paper deadline | IFTA | NA | NA | NA | admin@ifta.org; https://ifta.org/ |
| | 23 | IFTA Virtual Annual General Meeting (AGM) | IFTA | NA | NA | NA | admin@ifta.org; https://ifta.org/ |
| | TBA | Certified Financial Technician (CFTe) Level II Examination | IFTA | NA | Varies or online | TBA | |
| Nov | 1 | *IFTA 2022 Journal* Web publication | IFTA | NA | NA | NA | admin@ifta.org; https://ifta.org/publicatons/journal/ |
| | 15 | *IFTA Update* submission deadline for all news content (mid-December release) | IFTA | NA | NA | NA | admin@ifta.org; https://ifta.org/ |
| Dec | | *No events scheduled at this time* | | | | | |

# Balance professional development and your personal life with the STA Home Study Course©

## WHY PURCHASE THE HOME STUDY COURSE?

The world-class e-learning Home Study Course (HSC)© is written by leading industry practitioners, making it one of the best online products available on the technical analysis market. Whether this is your first introduction to technical analysis, you want to refresh your existing knowledge, or you wish to become a **qualified technical analyst,** the STA offers a tailored Home Study Course as part of our portfolio of world respected courses preparing students for our **internationally accredited STA Diploma qualification.**

You can learn from the comfort of your home at times that best suit you. Although website based, it is fully downloadable and may be used online or offline via PC, Mac, iPad or Android machines.

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Since the HSC is International Federation of Technical Analysts (IFTA) syllabus compliant it can also be used to prepare candidates for both the IFTA CFTe I and II examinations.

## WHO IS THE COURSE FOR?

The course is intended for individuals who want to use technical analysis in a professional manner or who want to become a qualified technical analyst and advance their career. Enroll and start studying now!

For more details click here or contact the STA office on +44 (0) 207 125 0038 or info@technicalanalysts.com

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# Congratulations 2020 Lifetime Achievement Awardee: J. Welles Wilder Jr.
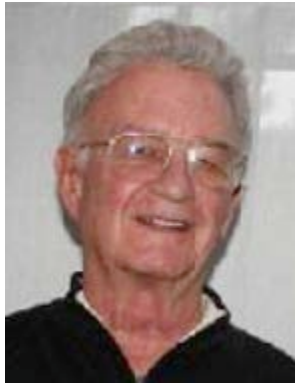
J. Welles Wilder Jr. was born in the town of Norris, Tennessee, during the Great Depression but grew up in Greensboro, North Carolina. His working life started as a mechanical engineer, but he also ventured into real estate development. After his partners bought him out of his real estate business in 1972, Wilder turned his attention to the commodities market.

Wilder focused on developing mathematical formulae that would lead to profitable trading systems in highly leveraged securities. The bulk of his endeavors were revealed in his book *New Concepts in Technical Trading Systems,* which was published in 1978 and established Wilder's reputation as a leading technical analyst. The book remains an important reference for both stock and futures traders and introduced six technical indicators that Wilder used as standalone technical trading systems. These were:

- The Commodity Selection Index (CSI)
- The Directional Movement Index (DMI)
- The Parabolic SAR
- The Relative Strength Index (RSI)
- The Swing Index
- The Volatility Index

Of these, the DMI, the Parabolic SAR, and the RSI became the most significant.

Wilder also published *The Adam Theory of Markets or What Matters is Profit* in 1987 and *The Delta Phenomenon* in 1991, as well as several articles on trading. In addition, Wilder made several appearances on radio and television programs and conducted technical trading seminars in Asia, Australia, Canada, the United States, and Europe.

## About the Award

*The Lifetime Achievement Award honors the career achievements of a technical analysis practitioner who has made extraordinary contributions to the field of technical analysis. The recipient will exemplify and promote the mission of IFTA through education and research. The honor will be considered for a technician who has demonstrated the highest standards of personal and professional conduct and whom his/her peers and the investment community at large hold in great regard.*

### Prior recipients:

2019   Robert R. Prechter Jr.

2018   Ir. Abdul Wahid Bin Jantan (posthumously)

2017   Sergio Paolino

2016   No award given

2015   John A. Bollinger

2014   John J. Murphy

2013   Dr. Henry O. Pruden

# IFTA 2021 Journal Now Available!

We are pleased to announce that the 2021 *IFTA Journal* is now available for viewing and download from the IFTA website.

*"...despite the pandemic, there is still an* IFTA Journal. *Not business as usual, but nevertheless as normal as possible."—Dr. Rolf Wetzer, CFTe, MFTA,* Journal *Editor*

A special thanks to Dr. Rolf Wetzer, CFTe, MFTA, Editor of the *IFTA Journal*

Inside this issue:

## MFTA Papers

- *Number-Based Sentiment Indicators,* by Przemysław Smoliński, MFTA
- *The Noise Trend,* by Mohamed M. Khedr, CFTe, MFTA
- *Determination of Time Target Zones for Price Targets of Classic Price Patterns,* by Momen Atef El Shayal, CFTe, MFTA
- *Emerging Currencies as Equity Earthquake Indicator,* by Ron Albert Marcelino Acoba, CFTe, CMT, MFTA
- *Coefficient Moving Average,* by Mohamed Fawzy ElSayed Ali AbdAlla, CETA, CFTe, MFTA

## Articles

- *The Ripples Effect: A Clearer View for Market Action and Price Patterns,* by Mohamed Ashraf Mahfouz, CETA, CFTe, MFTA
- *Forecasting Major World Indices on Ichimoku,* by Yukitoshi Higashino, MFTA

## NAAIM Papers

- *Stock Trends and Trend-Based Trading Strategies—Backed by Large-Scale Back-Testing Implemented by Automated Software System,* by Kevin Luo
- *Simple and Effective Market Timing With Tactical Asset Allocation,* by Lewis A. Glenn, Ph.D.

## Book Review

- *How the Average Investor Can Use Technical Analysis for Stock Profits: An In-Depth Work on Stock Market Technical Analysis, Mob Psychology, and Fundamentals,* by James Dines— Reviewed by Regina Meani, CFTe

*"Weak leadership can wreck the soundest strategy; forceful execution of even a poor plan can often bring victory."* —Sun Tzu

# IFTA *Journal* CALL FOR SUBMISSIONS

The *IFTA Journal* is an annual publication established by the International Federation of Technical Analysts. It is collated by a committee of IFTA colleagues. The *IFTA Journal* is essential reading for academics, students, and practitioners of technical analysis in all arenas. It contains a wealth of resource material and is an excellent reference for anyone interested in technical analysis.

## Credibility and Recognition

The *IFTA Journal* is the only international journal with original contributions from all continents covering developments in technical analysis in global markets. The *Journal* reaches leading practitioners and students of technical analysis throughout the world.

The *IFTA Journal* is a major professional resource. Its archival online publication on the IFTA website will make your original work available as a future resource to the worldwide community of technical analysts.

## Topics

IFTA is seeking papers that cover developments impacting, either directly or indirectly, the field of technical analysis; they may be drawn from such areas as:

- Basic market analysis techniques
- Indicators—sentiment, volume analysis, momentum, etc.
- Global and intraglobal technical analysis
- Styles of technical analysis
- Data
- The changing role of technical analysis in the investment community

We would especially like to see contributions that draw from areas not previously examined and/or topics tangential to technical analysis.

The above list is just a guide and should in no way be considered restrictive. We wish to make the *Journal* open to new and innovative ideas from all areas of technical analysis and those that connect with it.

## Submitting Contributions

Registration and submission of contributions is online via http://www.ifta.org, or by email to the editor at journal@ifta.org.

## Language

Contributions must be submitted in English, with British grammar required.

## Writing Style

Papers should be written in a thesis style. A guidance can be found at the following link: http://www.ifta.org/public/files/publication-downloads/MFTA_Thesis_IFTA%20Journal_Guide.pdf

## Referencing

All texts referred to in the paper must be appropriately referenced in a list of "References" at the end of the text. Further, all notes are to be included as endnotes ("Notes"). A Bibliography is not to be included.

The author is responsible for the accuracy of references and quotations. We expect the author to check them thoroughly before submission.

## Figures, Charts, and Tables

Illustrations and charts must be referred to by figure number and source. Tables must be referred to by table number and source.

## Length of Contribution

Papers should be approximately 1,200 to 3,000 words, with supporting graphs and charts.

## Format

We ask for submissions in MS Word or other text format, as well as a PDF. Charts and graphs may be in .GIF or .JPG, but we ask that authors also keep a .TIF format in case it is required for printing purposes. An Excel spreadsheet supporting your submission may also be included.

## Licenses and Copyright

We require all submissions to include the author's signature on the Publication Agreement at the end of this document.

We may publish online. We require that you place your submission under the Creative Commons Attribution-NonCommercial 3.0.

Unless another license is noted, we will assume that your contribution is under this license.

## Editorial Timeline

| | |
|---|---|
| December | Call for papers distributed |
| May 31 | Deadline for all submissions |
| May 31 | Papers distributed for review |
| July 31 | Reviewer's comments returned to editor |
| August 15 | Notification of acceptance/rejection |
| August 31 | Submission to printer |
| October | Conference distribution |
| November | Web publication |

For more information, see our website: www.ifta.org/publications/journal/.

# IFTA Member Societies

**AUSTRALIA—ATAA**   Australian Technical Analysts Association   **www.ataa.asn.au**
**CANADA—CSTA**   Canadian Society of Technical Analysts   **www.csta.org**
**EGYPT—ESTA**   Egyptian Society of Technical Analysts   **www.estaegypt.org**
**FRANCE—AFATE**   Association Française des Analystes Techniques   **www.afate.com**
**GERMANY—VTAD**   Vereinigung der Technischer Analysten Deutschlands e.V.   **www.vtad.de**
**HONG KONG—FTAA**   Financial Technical Analysts Association   **www.ftaa.org.hk**
**INDIA—ATA**   Association of Technical Analysts   **www.ataindia.in**
**INDIA—ATMA\***   Association of Technical Market Analysts   **www.atma.ac**
**INDONESIA—AATI**   Asosiasi Analis Teknikal Indonesia
**ITALY—SIAT**   Società Italiana di Analisi Tecnica   **www.siat.org**
**JAPAN—NTAA**   Nippon Technical Analysts Association   **www.ntaa.org.jp**
**LEBANON—LSTA**   Lebanese Society of Technical Analysts   **www.lstalebanon.com**
**MALAYSIA—MATA**   Malaysia Malaysian Association of Technical Analysts   **www.malaysianchartist.com**
**NEW ZEALAND—STANZ**   Society of Technical Analysts of New Zealand   **www.stanz.co.nz**
**NIGERIA—TASN**   Technical Analysts Society, Nigeria   **www.tasnigeria.org**
**SCANDINAVIA—STAF**   Skandinaviens Tekniska Analytikers Förening   **www.staf.nu**
**SINGAPORE—TASS**   Technical Analysts Society (Singapore)   **www.tass.org.sg**
**SOUTH AFRICA—TASSA**   Technical Analysts Society of Southern Africa   **www.tassa.org.za**
**SPAIN—IEATEC**   Instituto Español de Analistsas Técnicos y Cuantitativos   **www.ieatec.es**
**SWITZERLAND—SAMT**   Swiss Association of Market Technicians   **www.samt-org.ch**
**UNITED KINGDOM—STA**   Society of Technical Analysts Ltd.   **www.sta-uk.org**
**USA—TSAASF**   Technical Securities Analysts Association   **www.tsaasf.org**
**USA—AAPTA**   American Association of Professional Technical Analysts   **www.aapta.com**

\* Developing

# *IFTA Update* Schedule

The *IFTA Update* is the quarterly electronic newsletter of the International Federation of Technical Analysts, reaching more than 7,000+ IFTA colleagues worldwide. The *Update* is an efficient and cost-effective way to communicate with IFTA's member societies and colleagues.

## PUBLICATION SCHEDULE

| | |
|---|---|
| March Issue | All content due February 15 |
| June Issue | All content due May 15 |
| September Issue | All content due August 15 |
| December Issue | All content due November 15 |

# Board of Directors

**President**  Wieland Arlt, CFTe (VTAD)
**wieland.arlt@ifta.org**

**Treasurer and Website Director**  Karin Roller, CFTe (VTAD)
**karin.roller@vtad.de**

**Secretary and Membership Director**  Alek Jankowski, BE, M.Eng.Sc., Grad.Dip.Mgt. (ATAA)
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