Norbert Winter

Guide to the source and generating code of the Universe

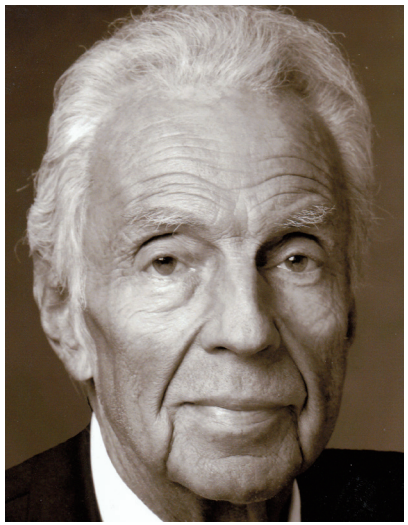
at small scale (elementary particles) and at large scale (global structures of the Universe)

Instructions for a clear approach to the paper:

The Universe Code Ψ-19,
the unified composition and order system of the universe

(abbr.) **UC-AOS**

Norbert Winter, 16/02/2018



Norbert Winter

- Norbert Winter, born 1942, raised in Göttingen
- Studied Physics at the Universities of Heidelberg and Munich
- Doctorate in Physics with a thesis on elementary particle theory, supervisor H.P. Dürr
- Employed at the Max-Planck Institute for Physics in Munich, student of Werner Heisenberg
- 1974-2006, change of career into the insurance industry, including 25 years as board member or chairman of various insurance companies
- Despite this professional activities constant engagement with questions of logic and physics and constant contact with high-energy physicists
- From 2006, intensive engagement with questions of logic and physics
- From 2008, concrete and targeted development of the following works:

14/04/2011: “The Construction of Matter” (ADM)
06/03/2012: “Matter, Logic, and Existence” (MLE)
19/04/2013: “The Highly Massive Scalar Boson” (HSB)
26/05/2014: “The Law of Greatest Simplicity” (GDE)
22/05/2015: “The Unified Construction Process of the Universe from Smallest to Largest” (EAU, Kap. I-X.)
17/12/2015: “The Act of Creation of the Universe” (UEA)
04/08/2016: “The Development Process of the Universe from the Big Bang until Today” (UEP)
17/03/2017: “The 6 Key Processes in the Creation and Development of the Universe” (KPU)
17/03/2017: “The Universe Code Ψ-19” (UC)
17/03/2017: “The Universe Code Ψ-19, the unified composition and order system of the Universe“ (UC-AOS)
16/02/2018: “Guide to the source and generating code of the Universe“ (WW-UEC)
16/02/2018: “The Universe Code Ψ-19, the creation system of the entire process of the universe“ (UC-G)
16/02/2018: “UC-1 – The creation of the Universe Code Ψ-19“
16/02/2018: “UC-2 – The Universe Code Ψ-19,
- The creation system of the first ever manifestation of the universe before the big bang (≡ primordial universe)
- The creation system of mass and charge“

16/02/2018: “UC-3 – The Universe Code Ψ-19, the creation system of the big bang (rupture of ${}_5G$) in the primordial universe
- The restructuring of the elementary particle set that has passed through the Big Bang
- the formation of the normal matter elementary particle set = $\underbrace{p^+, e^-, \nu ; St, \ \gamma, Z, G}$ ≡ h-atom given suitable energy boundary conditions“

16/02/2018: “UC-4 – The Universe Code Ψ-19, the creation system:
- of the Big Bang Reproduction Cascade including absolutely all fine and global composition structures of the Earliest Universe directly after the Big Bang ($\frac{2}{3}$ Dark Matter / $\frac{1}{3}$ Normal Matter)
- of the elementary particles of Dark Matter and Normal Matter including their inner-structural particle composition and their physical properties“

16/02/2018: “UC-5 – The Universe Code Ψ-19, the creation system of dark energy with the coupled construction of 4-dimensional space-time“

After publication (03/17/2017) of the paper

The Universe Code Ψ-19,
the unified composition and order system of the universe
$\equiv$ **UC-AOS**

$$\left[D^{(13)}_{\sigma_{13}} \Psi(x) \right]_{\wr\cup} \equiv \Psi^{(19)}_{\wr\cup}(x,\sigma_{13}) \equiv \Psi^{(19)}_{\wr\cup}(x) \equiv \Psi\text{-}19$$

I have received numerous letters with the question:

E.0.

- of whether it would be possible - due to the abundance of the overall material and the breadth of the topic of the paper UC-AOS (Chapter I. - XIV., 356 pages) - to recommend a guide with the help of which one can find a clear path through the overall text of the paper
- what, according to my opinion and with respect to the present overall situation of elementary particle physics and space physics, are the most important topics on either field

I would like to respond to both questions and first start off answering the question about the current topics of elementary particle and space physics.

To this end, I will formulate the most relevant topics, according to my opinion, in terms of 22 open questions:

The 22 open questions:

E.1.

1. Does a consistent “world formula” exist that anything and everything in the Universe originates from?

2. Has - Normal Matter / Antimatter
   - Dark Matter and
   - Dark Energy

   one and the same origin and has the entire formation of matter and force originated from one and the same Universe-Code?

3. If there is a unified source of all physical existence, which physical-mathematical structure does this origin have and can this structure be developed and represented in all its details?
   And if so, what does this „formula“ look like?

4. What happened before the Big Bang and what is the cause that actually led to the Big Bang?

5. What is the inner structure and inner dynamic of the Big Bang?

6. Was there a precisely structured process sequence of the Big Bang or can an exact structure of the Big Bang process be represented?

7. Why was the result of the Big Bang exactly the formation of the earliest Universe (right after the Big Bang) as measured by the Planck data, that is, about $\frac{2}{3}$ Dark Matter, $\frac{1}{3}$ Normal Matter / Antimatter?

E.1.

8. What is Dark Matter? What are the elementary particles of Dark Matter?
How are these elementary particles structured and what physical properties do the elementary particles of Dark Matter have?

9. Why are the elementary particles of Normal Matter / Antimatter exactly what they are measured experimentally? Why are there 4 fundamental forces in Normal Matter?
- the strong force
- the electromagnetic force
- the weak force
- the gravitational force?

10. What is mass and what causes mass?

11. What is charge and what causes charge?

12. What is space-time and where does it originate from?

13. Why are the fundamental laws of nature uniformly valid across the entire Universe?

14. What causes the continuous decrease of Normal Matter / Antimatter and Dark Matter on the one hand and, conversely, a continuous increase of Dark Energy with a coupled 4 dimensional space-time on the other hand during the development process of the Universe from the Big Bang until today?

15. What is Dark Energy and why is the construction of 4-dimensional space-time structure linked to Dark Energy?

16. What are the elementary particles of Dark Energy and what are the expansively aligned 4-dimensional space-time elementary units  coupled to Dark Energy?

17. What causes:
- matter / mass annihilation and in turn
- Dark Energy creation with coupled 4-dimensional space-time?

18. What is the inner-structural relation between mass, space-time and energy?

And therefore the detailed questions:

E.1.

19. Can there be a Universe-Code that is mathematically precisely determinable and by which anything and everything physically existent in the Universe originates from? Is there a uniform, mathematically precisely determinable generating code of the Universe capable of describing the Universe both
- at small scale (elementary particles of Normal Matter / Antimatter, Dark Matter, Dark Energy with coupled 4 dimensional space-time)
- as well as at large scale (overall construction and development processes)?

20. Was Werner Heisenberg possibly right about his attempt of establishing a nonlinear spinor equation, also referred to as world formula by some journalists in 1958, almost 60 years ago? What caused his attempt to fail at that time?

And in return:
Does the standard model, established in 1961 (SU3, flavor), 1964 (Gellmann, Zweig), over 55 years ago, constantly modified and extended, actually qualify as a candidate for a fundamental theory capable of describing the construction and development process of the entire universe both
- at small scale (elementary particles)
- as well as at large scale (overall construction and development processes)?

E.1. 21. Does the attempt of explaining the universe at small scale as well as at large scale (elementary particles of Normal Matter / Antimatter, Dark Matter, Dark Energy with coupled 4 dimensional space-time) utilizing the standard model inevitable lead into a dead end and if so, is there any way out? Is the standard model to be taken as a niche product and therefore not suitable to serve as an overarching theory?

E.2. 22. The cardinal question:
What does a theory capable of describing the Universe at small scale (elementary particles) as well as at large scale (overall construction and development processes) possibly look like? Are there currently any promising attempts to establish a theory of everything?

E.3. 23. The answer to this cardinal question is:
Yes, there is a unified theory of Universe physics and this theory is the paper UC-AOS:

The Universe Code Ψ-19,
the unified composition and order system of the Universe

Norbert Winter, 03/17/2017

in all details (including answers to these 22 open questions E.1., E.2. and other questions)

That‘s why I would like to address the proposal in E.0. of suggesting a clear path through the paper of UC-AOS and therefore point out that this paper UC-AOS is a further development of 9 previous papers and thus also the overall result of all these 10 papers published in the last 7 years, namely:

E.4.

14/04/2011: “The Construction of Matter” (ADM)
06/03/2012: “Matter, Logic, and Existence” (MLE)
19/04/2013: “The Highly Massive Scalar Boson” (HSB)
26/05/2014: “The Law of Greatest Simplicity” (GDE)
22/05/2015: “The Unified Construction Process of the Universe from Smallest to Largest” (EAU, Kap. I-X.)
17/12/2015: “The Act of Creation of the Universe” (UEA)
04/08/2016: “The Unified Construction Process of the Universe (the Big Bang Cascade) and the Development Process of the Universe from the Big Bang until Today (annihilation und creation) (EAU, Kap. I-XII.)
04/08/2016: “The Development Process of the Universe from the Big Bang until Today” (UEP)
17/03/2017: “The 6 Key Processes in the Creation and Development of the Universe” (KPU)
17/03/2017: “The Universe Code Ψ-19” (UC)
17/03/2017: “The Universe Code Ψ-19, the unified composition and order system of the Universe“ (UC-AOS)

These 10 papers amount to more than 1000 pages in total. In these papers, both the structure and the ordering system of the universe were analytically developed, elaborated and presented in all details, namely:

E.5.

Composition and development of the Universe:

- **at small scale** (i.e., the intrinsic structure of each elementary particle of all the different parts of the universe)
- **at large scale** (that is, the composition of the universe‘s overall structures and its developments)
- **over the full period,** i.e.:
  - before the Big Bang (Primordial Universe)
  - followed by the Big Bang process in all its details
  - followed by the construction and development processes of the Universe from the Big Bang until today
- **and this with regard to all different matter and force manifestations existing in the universe**, d.h.:
  - both before the Big Bang, i.e. regarding the Primordial Universe existing before the Big Bang (elementary particles of the Primordial Universe) in all its matter and force manifestations
  - as well as after the Big Bang, i.e. regarding the Universe that has evolved after the Big Bang, including the evolution from the Big Bang to the present day with all sorts of different Universe components, i.e.
    - the Dark matter and its elementary particles
    - the Normal Matter / Antimatter and its elementary particles
    - the Dark Energy with coupled expansive 4-dimensional space-time structure, i.e. the Dark Energy elementary particles (bosons) with coupled expansive 4-dimensional space-time elementary units  (space-time quantums)
- **for the inner structure of the elementary particles and their properties please refer to the overviews, in particula XI.36., XII.42.**

Therefore, given the abundance of the total material of the paper UC-AOS, each one of the 356 pages is of importance. Nevertheless, it is possible and desirable to provide „guidance“ on a clear approach to this paper, in order to facilitate the systematic understanding of the content of this paper. It should be noted:

E.6.

The paper UC-AOS follows in its internal structure the following outline:

- **Program Points** (page 2)
- **Vita** (page 3.)
- **Foreword** (pp. 4-21)
- **Table of Contents** (pp. 22-26)
  with individual and detailed descriptions of the chapters (Chapter I.-XIV.)
- **Result summary** (pp. 27-33)
  with the most important 37 individual results of the paper and their respective references to relevant chapters,
  in which each of the 37 individual results is dealt with
- **Summary** (pp. 34-39)
  with the main content of the paper
- **The detailed treatise of the individual chapters I.-XIV.** (pp. 40-286)
- **Closing Word** (pp. 287-291)
- **Appendix: Brief description** (1.)- (29.) (pp. 292-349)
  with the representation of the 29 most important universe processes within the overall universe process

Due to the outline, I recommend the following procedure as a guide to a clear approach and a systematic conception of the content of the paper UC-AOS:

E.7.

Step 1: Intensive review of the program points (page 2, UC-AOS) and the results overview 1.-37. (pp. 27-33, UC-AOS)

In order to get acquainted with the topic of the paper and to develop the necessary interest in the further study of this paper, an intensive review of the 37 individual results of the paper should take place, which are listed individually in the comprehensive results overview (pp. 27-33). There, reference is made to the relevant individual chapters I.-XIV., such that lookups can be made in a targeted manner.

E.8.

Step 2: Intensive Review of the Table of Contents (pp. 22-26, UC-AOS)

If interest in the overall topic of the thesis has been aroused by the engagement with the results overview, a structured conception of the detailed table of contents (pp. 21-25) for the individual chapters I-XIV should take place.

E.9.

Step 3: Intensive review of the briefs (1.)-(29.) (pp. 292-349, UC-AOS)

Before this leads to the necessary time-intensive study of each of the 14 chapters of the paper, I recommend - in order to gain an overall picture - first of all a thorough analysis of the 29 most important individual universe concepts discussed in the appendix (pp. 292-349) and listed individually as briefs (1.)-(29.). This gives the reader the „common thread“ of the overall paper UC-AOS and the reader can fall back on it if necessary.

E.10.

Step 4: Intensive review of Chapter XIII., in particular structural conception of the Universe Code Ψ-19 (pp. 222-268, UC-AOS)

In a second step, before going on to the final detailed and thorough conception of each of the individual chapters of I-XIV.
I recommend – first of all – focusing on chapter XIII. and to deal with this fundamental core chapter as thoroughly as possible.
The reason for this is that in chapter XIII. the development of the overall paper UC-AOS „climaxes“ by making use of the results of the previous chapters to obtain the complete, all-inclusive result XIII.2.1., XIII.2.2.:

E.10.

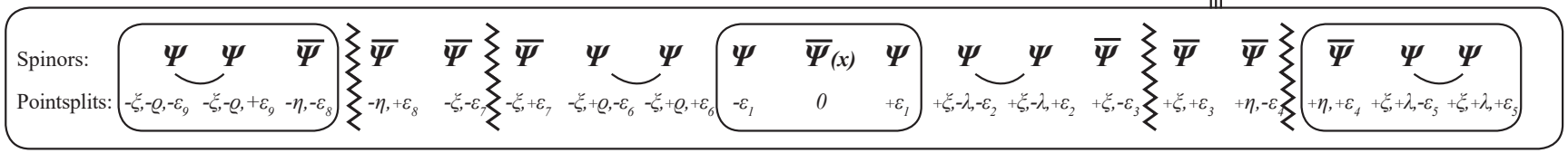
XIII.2.1.

Result:

- **The entire matter and force manifestation of the universe, that is, all universe components and all phases of the Universe:**
  - the Primordial Universe before the Big Bang
  - the Big Bang
  - the Universe after the Big Bang, i.e.:
    - Dark Matter and its elementary particles
    - Normal Matter / Antimatter and its elementary particles
    - Dark energy with coupled expansive 4-dimensional space-time structure, i.e. Dark Energy elementary particles (bosons) with coupled expansive 4-dimensional space-time elementary units (space-time quantums)

has developed out of one and the same preformation structure $\Psi^{(19)}_{\cup} \equiv \Psi\text{-}19$. **Consequently it is of identical origin.**

- **This formation structure (see V.1.1., V.1.2.) :** $\left[D^{(13)}_{\sigma_{13}}\Psi(x)\right]_{\cup} \equiv \Psi^{(19)}_{\cup}(x,\sigma_{13}) \equiv \Psi^{(19)}_{\cup}(x) \equiv \Psi\text{-}19$



is in all its individual and fine structures a necessary and unique sequence structure of the elementary foundation I.1., I.2., I.3. (see UC-AOS, Chapter I.-V.).

And that in turn means:

- **in the Universe, there is an overarching, unified, overall structural composition and order system** $\Psi\text{-}19$, which builds up
  - the Primordial Universe before the Big Bang with its single elementary particles ${}_5\overline{G}$, ${}_2R$, ${}_3G$; F_1, F_2, F_3; VII.4.)
  - the Big Bang with the Big Bang cascade XI.23.
  - the Universe after the Big Bang with its single elementary particles (see XI.36., XII.42.), i.e.
    - Dark Matter
    - Normal Matter / Antimatter
    - Dark Energy with the coupled expansive 4-dimensional space-time

E.10.

XIII.2.2.

And that in turn means:

$\left[D^{(13)}_{\sigma_{13}}\Psi(x)\right]_{\wr\cup} \equiv \Psi^{(19)}_{\wr\cup}(x,\sigma_{13}) \equiv \Psi^{(19)}_{\wr\cup}(x) \equiv \Psi\text{-}19 \equiv$ **V.7.** **is the inner structural composition and order system of the Universe.**

i.e.: $\left[D^{(13)}_{\sigma_{13}}\Psi(x)\right]_{\wr\cup} \equiv \Psi^{(19)}_{\wr\cup}(x,\sigma_{13}) \equiv \Psi^{(19)}_{\wr\cup}(x) \equiv \Psi\text{-}19 \equiv$ **V.7.** **is the Universe Code Ψ-19.**

i.e.: $\left[D^{(13)}_{\sigma_{13}}\Psi(x)\right]_{\wr\cup} \equiv \Psi^{(19)}_{\wr\cup}(x,\sigma_{13}) \equiv \Psi^{(19)}_{\wr\cup}(x) \equiv \Psi\text{-}19 \equiv$ **V.7.** **is the source and generating code of the Universe.**

i.e.: $\left[D^{(13)}_{\sigma_{13}}\Psi(x)\right]_{\wr\cup} \equiv \Psi^{(19)}_{\wr\cup}(x,\sigma_{13}) \equiv \Psi^{(19)}_{\wr\cup}(x) \equiv \Psi\text{-}19 \equiv$ **V.7.** **is the overall formula of the Universe.**

i.e.: $\left[D^{(13)}_{\sigma_{13}}\Psi(x)\right]_{\wr\cup} \equiv \Psi^{(19)}_{\wr\cup}(x,\sigma_{13}) \equiv \Psi^{(19)}_{\wr\cup}(x) \equiv \Psi\text{-}19 \equiv$ **V.7.** **is the „world formula“**

to express it somewhat more dramatically.

E.11.

Step 5: Intensive Review of Chapters I.-XIV., (pp. 40-291, UC-AOS)

To understand the results XIII.2.1., XIII.2.2. in all details and subtleties, a complete and thorough work through of the individual chapters I.-XIV. is required, which undoubtedly requires a lot of time consuming effort.

It took me 7 years of intensive work in which I dealt exclusively and in all facets with this topic only, to complete the entire paper UC-AOS including all 9 previous papers (see E.4.). All in all, I spent considerably more than 20,000 working hours.

Today, I can say that the result of this 7-year activity is the analytic development of the unified **Universe-Code** **(Ψ-19)**, and by this code **Ψ-19** the inner structure of all elementary particles existing in the universe can be deduced and thus determined analytically.

That is, the inner structure of all elementary particles existing in the Universe and in the various Universe phases is thus completely and uniquely determined, i.e. all matter and force manifestations existing in the entire universe, namely:

- Dark Matter
- Normal Matter / Antimatter
- Dark Energy with coupled expansive 4-dimensional space-time structure,

are thus clearly determined.

As shown in detail in the paper UC-AOS (e.g. section IV., V., VI.), the particular physical properties of the elementary particles i.e.

- mass
- charge
- force structure and force range

are clearly defined and determined.

All this has been developed and illustrated in detail in the paper UC-AOS and has been listed in the following elementary particle summaries:

For the elementary particles:

- the Primordial Universe before the Big Bang	see VII.4.
- the Universe after the Big Bang, i.e.:	see VII.4.
- Dark Matter	see XI.36. - Part ①
- Normal Matter / Antimatter	see XI.36. - Part ②
- Dark Energy with coupled expansive 4-dimensional space-time structure	see XI.42. - Part ③, nd XII.33., XII.35., XII.36.

It remains to be hoped that the experiments started and ongoing at Cern as well as at other laboratories will soon be able to prove the existence of

- **the Dark Matter elementary particles and their properties, as well as**
- **the Dark Energy elementary particles with coupled expansive 4-dimensional space-time elementary units  (space-time quantums)**

and to prove their respective properties.

My expectation is high that the properties of these elementary particles, analytically determined and predicted in the paper UC-AOS, will be thereby experimentally confirmed.