

Discussions and Conclusions of the Studies in this Issue

In the studies provided, the generation of random numbers and the corresponding calculations, together with full process randomization (including the initial seed randomization), provided a platform to trace the probabilistic variations in the obtained results when exposed to T-Consciousness Fields (TCFs). Such variations manifested themselves as changes in the trend or distribution of events and the corresponding calculations.

An important and noteworthy point in the data obtained from this study is that at this level of accuracy and repeatability in randomly generated numbers, for example, in the range of zero and one (10000 numbers) or in terms of repetitions in the calculations (100 iterations), one should not expect results with significance levels lower than 0.05. What is considered a signal within noise is the probabilistic observable trends in the data population. Therefore, in the studies provided, by analyzing the trends and determining the dispersion and centrality indices of the data, together with assessing the conformity of the distributions obtained from the data (normal or non-normal distributions) and also by examining the variations in the Shannon entropy for the selected intervals of the obtained distributions, our goal was to investigate any discernible and traceable patterns formed under the influence of TCFs.

Ultimately, by comparing the generated datasets and examining the average uncertainty parameter of the calculations, or in other words, the difference between the calculated values and the analytical value, the changes as a result of TCF effects have been demonstrated with greater clarity, even in the range of statistically significant variations in conditions where the highest statistical uncertainty exists.

According to the theory of T-Consciousness Fields, TCF1 is recognized for its general function of correcting and improving a system under study and for accessing information from the generating factory, which is T-Consciousness. According to the T-Consciousness theory, the application of TCF1 on a system can lead to the transfer of information from TCF1 to the subject under study, thereby enabling improvements and optimizations at the system level. On the other hand, TCF2 serves the purpose of transferring data and necessary information to the system in the direction desired by the experts involved in the subject of study and research, which should not contradict the processes and mechanisms of the system in relation to the rules of the Cosmic Consciousness Network. With this theory in mind, the results obtained from this study are analyzed, and the functionality of these two TCFs and their impact on the computational environment are evaluated.

Based on the analyzed data in these studies, by increasing the dimensions and complexity of the problems and by imposing conditions that would raise the errors in the internal environment of a system under study, the varying influences of TCFs are observed. In the first phase of the study and during the generation of random numbers, there is no significant distinction between the samples and the control. However, in one-dimensional calculations where the error is low (one-dimensional study), TCF1 performs its function with greater clarity. On the other hand, in two- and three-dimensional studies where the error increases, TCF2 demonstrates the combined effects of both fields more effectively. In fact, with the increase in system uncertainty and error, this combined state of the two TCFs better reveals their significant effects. Depending on the formulation of the problem and the desired solution in the calculations, these observed results from the functioning of TCF2 (which also includes the combined effect of TCF1) can be justified according to the theory of T-Consciousness Fields. Based on the theory

of T-Consciousness Fields, the functionality of these TCFs on the system under study involves increasing the data and necessary information to optimize the structure and functionality (TCF1) as well as to achieve a specific goal under the rules of the ecosystem (TCF2). What is observed in this study, especially with the combined functionality of the two TCFs at a more complex level, indicates an increase in the information in the system as a result of data exposure to the TCFs. Consequently, this leads to the tendency of the system towards the required values, reduction of uncertainty, and system error by about 12%. This event is also well supported and confirmed by the decrease of approximately 10% in the Shannon entropy at this level of study, which is the most evident part of the study.

The results of this research can be summarized as the following:

1. In this series of studies, the effectiveness of T-Consciousness Fields type 1 and type 2 in a computational environment was investigated and confirmed for the first time using random number generation tools and Monte Carlo simulations in three dimensions.
2. The results of these studies indicate the impact of TCFs on the software level or the information of the system under study.
3. The influence of TCFs in this study can be observed through changes in the overall distribution of the generated random numbers, changes in the distribution of calculated values, reduction in the uncertainty of the calculated responses, and a decrease in the entropy of the distribution.
4. In this study, the selected problem type and its solution method contained uncertainties arising from the statistical nature of the problem. This nature was intensified by maximizing positions that allowed for further increases in the uncertainty, such as the seed and the number of operating random number sets. This design played a significant role in observing and analyzing the effects of TCFs in computational calculations.
5. Under the conditions of this study, with an increase in the complexity of the problem (from one dimension to three dimensions), the system gradually accepted higher calculation errors or, in other words, an increase in uncertainty. This event led to a diminished deterministic nature of the random numbers, which are dependent on the mathematical formulation and subroutines of the software, and the system output became closer to its variable behavior, which can be seen as a response to changes in the environment.
6. According to the results of these studies, with an increase in computational uncertainties, the TCF exposure gradually leads to statistically significant changes in the trends and the distribution of the data (p -value < 0.05)
7. Completing this study by examining the impact of TCFs in specialized computational code environments of Monte Carlo simulations (such as Geant4 and MCNP, which are used in nuclear science and technology) is of special importance and can enhance the computational power of computers and supercomputers. This is considered as a future outlook for the authors.