



## Natural Cooperation of Seismic Activities Related Wave Propagation on the Worldwide Pandemics Processes

**Taner Sengor**

Dept. of Electronics and Communication Eng., Yildiz Technical University (Emeritus), Istanbul, Turkey

The recent pandemic is the first stage of a worldwide spreading diseases manifold<sup>1</sup>. The events of new complex viruses' network are in results of some universal and natural processes<sup>2</sup>; therefore, all the mechanisms related to these types of complex viruses' pandemics must be handled and taken considering its true nature; unfortunately, the topics excluding the natural science disciplines related to pandemics may not bring a valuable contribution to the solution of the recent problems generated with the worldwide diseases' chains. The tactics of world widely attacking complex viruses and pandemics are valuably intelligent so they control and command their behaviors as covering a simultaneously widen activity. This brings considering of *communication-like* and *intelligence-like* mechanisms embedded in molecular structures of such complex viruses as an algorithmic process. The motivating approach of this thesis is related to the studies connecting virus and/or *virus-like*, say *virutic*, environs and especially itself of the virus body with an electromagnetic problem topic which have high potential to contribute deterministic, fast solutions for the recent unusual pandemic and possible pandemics in future. The solutions would provide strategies for the healthcare from viruses without having to use undiscovered methods and techniques yet, independently. There is some specific self-optimization processes behind both the minor and the majorant natural events iff the Earth is considered with its all ingredients to downwards from upwards as a single and compact system<sup>3</sup>.

Some specific spatial processes generate simple molecular structures, say *virutic structures*, *VSs*. The *VSs* prepare a way for occurrence of complex molecules after collisions' chains. Some complex molecules related to *VSs* construct active particles as active matter. These active particles design *Brownian-like motors* consuming the wave energy coming from both the seismic activities and mean spectral power density in the Earth's atmosphere per frequency and per volume and per surface according to bandwidth. These Brownian-like motors create *Brownian-like bridges*. These Brownian-like bridges can carry the active particles involving *VSs* to the extremely long distances and locations; therefore, they may move among continentals, easily but conditionally. The collisions among *VSs* create viruses and/or *virus-like particles* in complicated design algorithms as complex molecules during the *Brownian-like transportations* along the *swarming-like paths* governed with 2<sup>nd</sup> order stochastic partial differential equations. These paths are highly *modulated* in an anomalous super diffusion pattern by the waves related to the significant seismic activities.

The natural physical settlement of the initial values of the 2<sup>nd</sup> order stochastic initial boundary value problem, 2<sup>nd</sup> *oSIBVP*, was occurred around 1999 according to above said *Brownian-like processes*. The pike of the distribution relatable to the process is approximately 2019. If the process is considered as a stable distribution having the pick in 2019, then it has a half bandwidth of around 20 years. If the process is accepted propagating with a standard probability density function, then the initial ending of the process is around 2039<sup>2,4</sup>.

---

<sup>1</sup><https://www.researchgate.net/project/Relational-Equivalence-Mechanisms-of-Electromagnetism-to-the-Widened-Virus-Problems>.

<sup>2</sup> doi:10.23919/URSI- ETS.2019.8931455.

<sup>3</sup> <http://meetingorganizer.copernicus.org/EGU2019/EGU2019-17127.pdf>.

<sup>4</sup>Sengor T, On the Availability of Electromagnetically Equivalence Processes Relevant to Worldwide Spreadable Diseases Manifolds. 34th URSI GASS 2021 Rome (submitted).