**2019 BERTALANFFY LECTURE:**

**A CANDIDATE GST: SYSTEMS PROCESSES THEORY (SPT)**

Len Troncale

This talk begins with a concise overview of Ludwig von Bertalanffy as Founder of GST and the ISGSR, forerunner of the ISSS. His main contribution may have been his focus and emphasis on how systems work, the mechanics of systems dynamics, the isomorphies true of many different systems. The talk will begin with a citation of the original objectives of the SGSR as formulated by Founders like Bertalanffy and will cover as many of the following additional topics as possible within the allotted time (although all of the slides and handouts will be available whether delivered or not):

(1) The extent of Isomorphies developed by Bertalanffy; (2) Other Founders and their often-forgotten cross-disciplinary contributions; (3) Overview of >100 GST Sources; (4) Dispersion or Fragmentation of Theories: Half Century Need for Unification; (5) Desirability of debating Criteria for a GST and for a Science of Systemness to increase rigor and acceptance of our approaches;

(6) My LifeWork in ISSS: Origin of & Intention for SIGS & Change of Name to ISSS; (7) Conflating Systems Thinking [ST] & Systems Science [SS]; (8) Need for A Science of Systems; (9) Odum, Miller, Haken as Prototype Sciences of Systems & benefits; (10) Brief Analysis of Current SIGs in ISSS; (11) Need to Know Systems Mechanisms to Fix or Better Design Systems;

(12) Shortest Intro Possible to Troncale SPT as a GST & SS; (13) What Is An Isomorphy in SPT; (14) Alternative Lists of Isomorphies in SPT; (15) Sample of Extent of Natural Science Literature on Isomorphies, Utility of Harvesting or Incorporating into GST attempts; (16) Linkage Proposition Advance of SPT; (17) TEN SPT Spin-Off’s;

(18) Systems Archival Resources at new Claremont Office; (19) Current Modeling Attempts; Odum to NPS to ?; (21) SPT as Model of Models; Library of Models for each Isomorphy; (20) Exemplar Applications of SPT to Engineering, Industries, Natural Systems; (21) SPT as Descriptive, Prescriptive, AND Normative; (22) Science-Based Values for Tech Era from SPT: From Tao of Systems Science to Emergence of Meta-Humans; (23) Announcement of the newly forming International Society for Systems Pathology (ISSP), ISGE & USSO Workshops.