

Abstract Submitted  
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**DEFINITION of (so MIScaled) “Complexity” As UTTER-SIMPLICITY!!!(sMciUS!!!) VERSUS DEVIATIONS FROM( sMciUS!!!): “COMPLICATEDNESS” DEFINITION(S) and MEASURE(S)!!!** F. YOUNG, C-S/F=C/Los Altos, E. SIEGEL, C-S/F=C/La Jolla — (so MIScaled) “complexity”(sMc) associated BOTH SCALE- INVARIANCE Symmetry-RESTORING(S-I S-R) [vs. S-I S-B!!!], AND  $X(w) P(w) \sim 1/w^{(1.000\dots)}$  “pink”/Zipf/Archimedes-HYPERBOLICITY INEVITABILITY CONNECTION is by simple-calculus SISR’s logarithm- function derivative:  $(d/dw)\ln(w)=1/w=1/w^{(1.000\dots)}$ , hence:  $(d/dw)[\text{SISR}](w)=1/w=1/w^{(1.000\dots)}$ =(via Noether-theorem relating continuous-(SISR)-symmetries to conservation-laws)=( $d/dw$ )[4-DIV (J(INTER-SCALE)=0)]( $w$ )= $1/w=1/w^{(1.000\dots)}$ . Hence sMc is information inter-scale conservation [as Anderson-Mandell, Fractals of Brain; Fractals of Mind(1994)-experimental- psychology!!!], i.e. sMciUS!!!, VERSUS “COMPLICATEDNESS”, is sMcciUS!!!: EITHER: PLUS (Additive: Murphy’s-law absence) OR TIMES (Multiplicative: Murphy’s-law dominance) various disparate system-specificity “COMPLICATIONS”. “COMPLICATEDNESS” MEASURES: DEVIATIONS FROM sMciUS!!!: EITHER [S-I S-B] MINUS [S-I S-R] AND/OR [“red”/Pareto  $X(w) P(w) \sim 1/w^{(\# \neq 1.000\dots)}$ ] MINUS [ $X(w) P(w) \sim 1/w^{(1.000\dots)}$  “pink”/Zipf/Archimedes-HYPERBOLICITY INEVITABILITY] = [ $1/w^{(\# \neq 1.000\dots)}$ ] MINUS [ $1/w^{(1.000\dots)}$ ]; almost but not exactly a fractals Hurst-exponent-like [ $\# - 1.000\dots$ ]!!!

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