

Abstract Submitted
for the MAR11 Meeting of
The American Physical Society

**Dichotomy Identity: Euler-Bernoulli Numbers, Sets-Multisets,
FD-BE Quantum-Statistics, $1/f^{\{0\}}$ - $1/f^{\{1\}}$ Power-Spectra, Ellipse-
Hyperbola**

Conic-Sections, Local-Global Extent: "Category-Semantics" G.-C. ROTA,
EDWARD CARL-LUDWIG SIEGEL, FUZZYICS=CATEGORYICS(SON OF
TRIZ) — Seminal Apostol[Math.Mag.81,3,178(08);Am.Math.Month.115,9,795(08)]-
Rota[Intro.Prob. Thy.(95)-p.50-55] Dichotomy equivalence-class: set-theory: sets V
multisets; closed V open; to Abromowitz-Stegun[Hdbk.Math.Fns.(64)]-ch.23,p.803!]:
numbers/polynomials generating-functions: Euler V Bernoulli; to Siegel[Schrodinger
Cent.Symp.(87); Symp.Fractals, MRS Fall Mtg.,(1989)-5-papers!] power-spectrum:
 $1/f^{\{0\}}$ -
White V $1/f^{\{1\}}$ -Zipf/Pink (Archimedes) HYPERBOLICITY INEVITABILITY;
to analytic-geometry Conic-Sections: Ellipse V (via Parabola) V Hyperbola;
to Extent/Scale/Radius: Locality V Globality, Root-Causes/Ultimate-Origins: Di-
mensionality: odd-Z V (via fractal) V even-Z, to Symmetries/(Noether's-theorem
connected)/Conservation-Laws Dichotomy: restored/conservation/convergence=0-
V broken/non-conservation/divergence= $\neq 0$: with asymptotic-limit antipodes mor-
phisms/ crossovers: Eureka!!!; "FUZZYICS"="CATEGORYICS"!!! Connection
to Kummer(1850) Bernoulli-numbers proof of FLT is via Siegel(CCNY;1964) <
(1994)[AMS Joint Mtg. (2002)-Abs.973-60-124] short succinct physics proof: FLT
= Least-Action Principle!!!

Edward Carl-Ludwig Siegel
FUZZYICS=CATEGORYICS(SON OF TRIZ)

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