INCONSISTENT POLYNOMIALS, GEOMETROSTATIC AND THEOMETRIC LOCATING OF MONADS, TRACTATUS-RESIDUE

Eduard W. Wette
Radevormwald and Hennef-Uckerath

0. The subject dealt with in this paper had already been presented at the Sixth Symposium [2, JSL 48 l.c. [12]]. As concerns ontometry & theometry, i.e. a geometrostatic unification of 'motion' which eliminates not only all physical concepts (and data) but also all singularities from analytic or "harmonic" continuation (1962/65)–revolutionizing meta-astronomical consequences included (1973/75/77)–, there is now my summarizing contribution [2] on the occasion of the 15th century Hijra centenary celebrations.

0.1 The calculation of a pouch-wave (: Fig. 1), i.e. the simplest *maxi*mal surface, transcends all variational methods in uniform $g\ (x,\ t)$-terms, what encourages the imagination of pure geometry to rebut classical analysis with its arithmetizing criticisms: e.g., "continuous" curves with pathological properties (Weierstrass, Peano). Only an arithmetized transformation of metamathematical ⌜proof⌝-concepts is fitted to refute analysis (1966), arithmetic (1970), elementary computation, and propositional decision (1974), since the control of such basic results must be independent of any language. There is no defence against contradictory results of direct reckoning, except for intrafinite bounds to numerical polynomials: formalism can exploit latent code-numbers, even if encoding is prohibited by meta-stipulations.

0.2 The exhibition of inconsistent polynomials within position systems ever since the Sumerians, or in the concrete storage of modern computers, starts from a counter-derivation vs. Gödel's untrue theorems on *un*derivable propositions within a formal system. Archimedes' ψαμμίτης envisaged numbers $\leq \mathsf{A}^{\mathsf{AA}}$ with $\sqrt{\ }\mathsf{A} = \mu$ = myriad = 10000; no 'period' $= \mathsf{A}^{\mathsf{A}} = 10^{800\,000000}$ would have been introduced, if he had foreseen the size of inconsistent numbers (: **1.2**).

1. The first consistency-*critical* tool [1], a 140-rule calculus $\mathbf{K}_0$ which separates +, × from = and translates arithmetical 'implication' into reflection-free 'production' on finite levels, can be decoded from $9812 = 373{\cdot}4 + (1720-56){\cdot}5$ binary digits (: Note); the number of 1-bits can be minimized to 2769, and the decimal value $\Psi_c = 2582.39^{+}..\times 10^{2950}$ encodes a critical creation. A tenfold information $\Psi_s < \Psi_c{}^{10} \ll \mu^{\mu}$ defines the primitive recursive function Ω and its *semantically* inconsistent property $\mathsf{E}\ (\Omega;\ \xi) \equiv \mathrm{R}_{13.}\ (\xi) \rightarrow \mathrm{ri}\ (\Omega\ (\xi)) \wedge [\Omega(\xi)]_3 = [\xi]_3 \wedge \mathrm{gl}\ (\Omega(\xi)) \leq \mathrm{tl}\ (\xi)$. E is semipolynomial over Ω with varying undevicesimal degree, trilinear in the 19-length of subinputs; E's computation uses values $< \eta^{\eta} = {}^{2}\eta$ in $\eta = \Omega\ (\xi)$, since $({}_{19}\log \eta)^{3-1} < \eta$. The 19-length of $\Omega\ (\xi)$ can be $\leq {}^{\xi}\xi = \psi_4\ (2,\ \xi)$, $<$ for $\xi \neq 1$. Such a transelementary growth seems to exclude the transformation-lemma $\vdash_{\mathbf{Z}} \mathsf{E}\ (\Omega;\ \xi)$: a ri-⌜derivation⌝ $a^* = \Omega\ (a)$ of ⌜Vx U (x)⌝ exhibits ⌜U $(^{(\prime)}0)$⌝ $= [a^*]_{2,3}$, what entails ${}^{a}a \gg j + 1$; iterated ⌜inductions⌝ within a can result in ⌜Vx $(\psi(n,n) = x$⌝ with values j of the non-primitive recursion $\psi_{n-1}\ (n + 3,\ 2) - 3$ [2, JSL 48 lines 5 & 6].

1.1 Nevertheless, the lemma $\vdash_{\mathbf{Z}}\mathsf{E}$ has been deduced by a *formal* induction on ξ through a 40-case induction step; the definition of Ω and E consists of < 300 auxiliary functions. Moreover, ${}_{19}\log\ \xi^* \leq {}^{\xi}\xi$ is formally compatible with subsequent results that refute $\vdash_{\mathbf{Z}}\ \mathsf{E}$ from earlier values than from an "inaccessible" ψ-term. A megabyte of information $> \mu^{30\mu} > \Psi_s{}^{40} > \Psi_f$ defines $< 300 + 2000$ variable-free polynomials which compute the *formally* inconsistent ⌜de-

rivation¬ $a_\wedge$ ($> e_\wedge \gg e_\vee > e_T = \ulcorner \vdash_{\mathbf{z}} \mathsf{E} \urcorner$); $a_\wedge$ contains a minimum of ⌜inductions¬, and an induction-free control of $49838 = [a_\wedge]_3 = [a_\wedge{}^*]_3 \neq 49838$ uses E for $\xi \leq a_\wedge$ only (whereas $e_\wedge$ contradicts "$e_\vee$" $\equiv \vdash_{\mathbf{z}} R_{6.}(\xi) \to [\xi]_3 \neq 2949$ after "e_T" for ξ), i.e. pure reckoning with variable-free terms $\leq \Omega(a_\wedge) < {}^3(10^6)$ is inconsistent. The description of reckoning by k-proposition letter formulae yields a contradictory decision on 2 values, if $k \geq {}^5(10^6)$. Ergo: logic cannot *measure* itself; quantifier-free induction can be discomputed.

1.2 Defining informations in ⌜$a_\wedge$ applied¬ are $> \Psi_f$(⌜$a_\wedge$ computed¬), but $< \mathsf{A}^{15\mu}$. If Ψ_f computes $a_\wedge$ without any abbreviation (e.g., ⌜Ω¬), then $R_{13.}(a_\wedge) \wedge R_{6.}(e_\wedge) \wedge R_{3.}(\ulcorner \mathsf{E} \urcorner)$, and the *numerically* inconsistent value of $a_\wedge$ is $< \Psi_f^{677} < (\Psi_s^{27})^{1003} < \mathsf{A}^{\mathsf{A}}$, since (i) "$a_\wedge$" contains $\ll$ 1000 occurrences of Ω, (ii) the polynomial value ⌜E¬, reproducing Ψ_s within Ψ_f, fulfils $\Psi_s < \ulcorner \mathsf{E} \urcorner < \Psi_s^{27}$; $R_{13.}$ reproduces $\mathbf{K}_0$ within "Ψ_s", so that $\Psi_c < \ulcorner R_{13.} \urcorner < \Psi_s$. Storing up 2300 addresses within $a_\wedge^{\cdot}$, the value of $a_\wedge^{\cdot}$ approaches its modified ⌜computation¬ $\Psi_f^{\cdot}$ ($< \Psi_f$).

1.3 In distinction to my (1978 Madison &) 1983 Salzburg precaution (A), parameter-solutions can be avoided by a doubly noninterlaced Ω-nesting in e : let f^-, b^- be f, b with $l-1$ instead of l [2, JSL 44, p. 475 line 14], let $a^- = \Omega_3(l-1, [e]_2, b^-)$; then $\mathrm{el}(s([e]_3) - 1, \Omega_3(l-1, [a^-]_1^h, \varphi^*([a^-]_1^h, [f^-]_2, q_4'([a]_1))))$ with $h = h(e) = 1 + s([e]_{2,3}) - s([e]_{2,3,2})$ is the new 2 + 3 -nesting $\tau'_{6.10}(\Omega_\bullet; l, e, a)$.
The 1983 neutralization (B) can recur on the quadruple (l, e, c, a) instead of (l, m, e, c, $\tilde{a}$), if the 10 "didactic" nestings in a are the only ones to be eliminated by Péter selection from a substitution-code, whereas the 2 + 4 nestings in m, e have a didactic reduction after introducing further depth-concepts td, vd (as to tuples, variables) besides id, ed, which all enter, together with a md-rudiment, into a stricter grading level gl (a) $\leq l$.

1.4 Hilbert wrote in 1934, that Gödel's result could not prove the impracticability of his programme; he concluded that a sharpened (intrafinite?) utilization of the finite viewpoint must be the clue to more comprehensive (system-internal?) consistency-proofs. Gödel's arithmetizing methods were not advanced enough to confront Tarski's epigoni with the cage ⌜notation vs. meaning¬, i.e. to "gut" Dirichlet's pigeon-hole principle. 2^{k^n} "free" decision series on k^n lattice-points restrict the human mind to consistent

	99	313	1981	51551	I	2	
values $k \leq$	21	46	157	1385	I	3	
	9	17	44	227	I	4	
as concerns	Ψ_c	Ψ_s	Ψ_f	A^{A}	and	n	dimensions in space & time.

2. Another work of intrafinite calculation is the complete solution to F. Klein's problem (1908) beyond Hilbert: *why* is arithmetic applicable to the realities (in nature, economics, politics)? Physicists (and astronomers) are unable to eliminate the patchwork of their concepts, formulae, and expensive experimentation for distorted data, to rectify the silhouettes of relativity & uncertainty as in QED, QCD, GUTs, to compute the curvature-distribution of the fold-fling oscillation representing a 'photon' (: Fig. 1), or mass-ratios hadron/lepton from a geometro*static* insight into the aether's kinematics. Descriptive geometry, > 60 millennia old, visualized the seamless warp & woof of nontransformable space-profiles & time-fibres with elastico-definite metrics, the anisotropic proportions in the "absolute" 4-torus average of time & space, the felly-position of our Milky Way (Hubble's redshift being a carrousel-effect!), negative masses in the anti-curved kernel of each star, varying values c (r), $\hbar$ (v) vs. fundamental "constants" c, $\hbar$ in conceded formalisms that do not intend to maintain 'substance & continuity' [2]. A determination of the terrestrial diagram-length for 1 sec from $\check{c} = \cot \hat{\alpha} \wedge \hat{\alpha} = 39°31'46''$ was obviously "outside" physically accessible achievements.

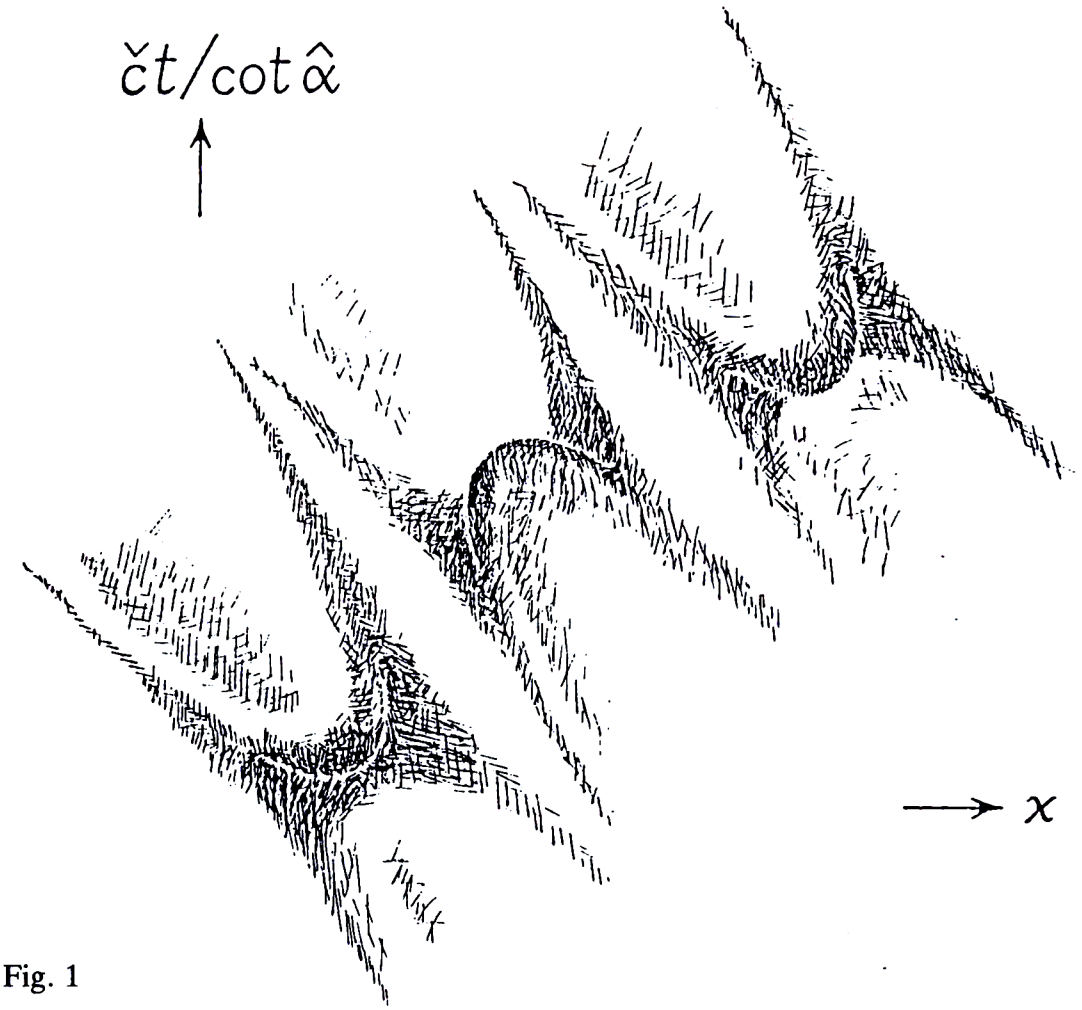
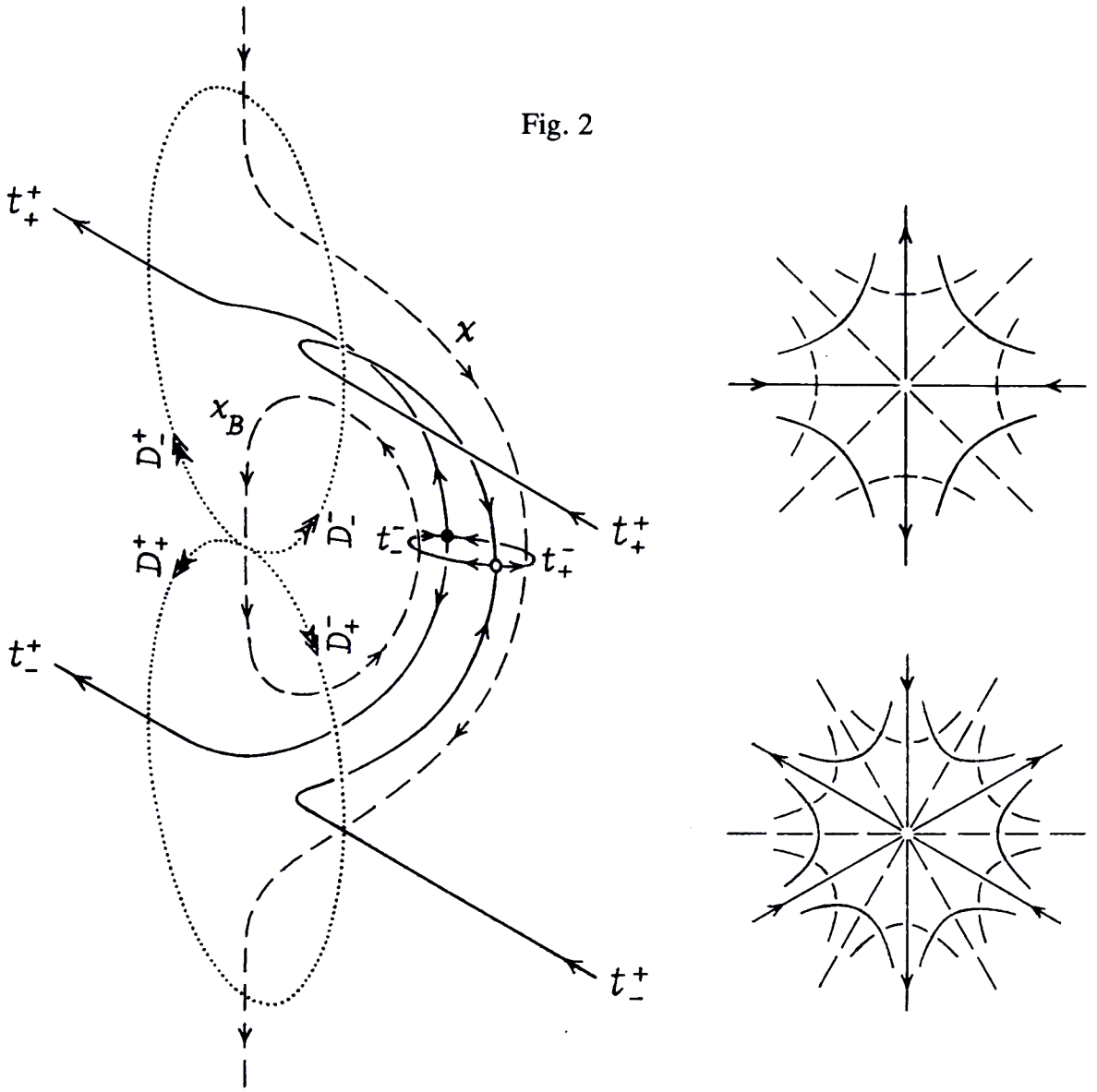


Fig. 1

3. The locating of *monadic* threads (with respect to 'time' and *one* 'spatial' dimension) came from the web on a handle, whose net-lines cannot everywhere coincide in ones as with regularity. Fig. 2 shows a bio-handle—transitory tying-off of a bio-profile, whereas all time-fibres are coherent—and the scaffolding of its monadic fibres; monadic profiles & fibres meet at 2 cross-points of multiplicity 1, i.e. in pairs (or at 1 cross-point of multiplicity 2, i.e. in triples). Monad t_{-} between 'birth' and 'death' represents the internal ego; $t_{\mp}$ can be the external ego *or* the super-ego in psychoanalysis; $t_{\ddagger}$, $t_{\pm}$ locate the masculine & feminine branch of id (before 'birth'), and soul & body (after 'death'), branches which belong to super-ego *or* id, but return to their own id under a frequency 0.3325 aHz $\approx 1/\hat{t}$ without repetition. Contrary to Maxwell, sources & vortices have no primary existence; circulations on the global average (e.g., from economy, traffic) exert wringing tendencies at the orifices of handles, where those result in collective reaction $D_{\mp}^{-}$, D_{-}^{-}, forces to be balanced by individual action $D_{\ddagger}^{+}$, $D_{\pm}^{+}$. Differences $D^{+} - D^{-}$ mirror Freud's basic instincts, eros & thanatos.—Deviating from Leibniz's Théodicée, there is no highest monad; if 'God' corresponds to the substance-free and immovable rotation axis of 'time' in the cartography of all phases in the changing 'space', then 'His' theo-*metric* distance to our felly-position is $0.4203\ r_3 \approx 0.1184 \times 10^{24}$ km [2].

Fig. 2



4. Bounds to syntax have been unexpected in mathematical combination, not in natural languages. Wittgenstein interpreted the axiom of infinity by way of names with distinct meaning (TLP 5.535), but he did not consider the topo-& morpho-"logical" conclusions from finite bounds (TLP 5.2523)—not to speak of topo- & morpho-metric computations—, even if he felt limits (TLP 6.45). The syntactic collapse of semantics in position systems left 77 Tractatus-paragraphs under 526 ones, which might be of "unrestricted" validity.

I prefer to read in the reverse order: 6.54 6.522 6.52 6.5 6.45 6.372 6.371 6.3631 6.363 6.36111 6.36 6.3431 6.34 6.33 6.211 6.1231 6.031, 5.621 5.5561 5.556 5.555 5.5423 5.542 5.535 5.526 5.525 5.475 5.454 5.452 5.44 5.253 5.251 5.25 5.232 5.231 5.22 5.154 5.153 5.1363 5.1362, 4.462 4.211 4.1273 4.1271 4.1213 4.1212 4.116 4.114 4.1122 4.064 4.061 4.05 4.0412 4.0411 4.031 4.027 4.025 4.022 4.0141 4.013 4.012 4.011 4.01 4.002, 3.411 3.343 3.341 3.34 3.33 3.323 3.317 3.262 3.141 3.04 3.0321 2.063 2.024 (!).

Note. The occurrences of 1's reorder the value of bytes and 5-bit blocks: 0, 1 2 4 8 (16), 3 5 6 9 10 12 (17 18 20 24), 7 11 13 14 (19 21 22 25 26 28), 15 (23 27 29 30), (31). The statistical distribution of relators and of functors or communicators determines the argument-number for reordered bytes and blocks: *0*214213111132313, *0010000032300122203223220000000***. Slanted *0*'s indicate ⌜creator⌝ and ⌜communicators⌝, which are not autonymous; formally those can be taken as 0-place relator and functors. The partition starts (from right to left) with a

byte; each n-place byte is followed by n ⌜word-terms⌝ in blocks; the end of such "Polish" terms, determined through the rank of blocks, marks out the beginning of a byte. Commata are superfluous: premises and conclusions contain *one* byte. Metacommata between rules can be avoided: prohibit (i) different bytes in conclusions of the same ⌜creator⌝, (ii) unfettered ⌜communicators⌝ in a conclusion. For application contract the 140 rules to 78 ones with ≤ 8 conclusions (and ≤ 7 premises); one can reorder premises (e.g., rule 13.13 or 4.7,8) and, if "free" choice over communicator-indices is to be kept, also rules (e.g., 7.2.2 ahead of 7.2.1, or $6.3,4,6,7 \prec 6.2 \prec 6.9 \prec 6.5 \prec 6.10 \prec 6.8$): the insertion of 6.9, 6.10 with 13 communicators each out of a 5-stock (between 6.2, 5, 8 with ≤ 19 ones out of a 7-stock, but without any "new" and "uneconomical" index) uses the case that two bytes 0010 in ≥ 1 premises of 6.9 or 6.10 (via (ii)) *and* ≥ 1 conclusions of the foregoing rule 6.2 or 6.5 yield *one* premise and *one* conclusion.

The subtraction of $56 \cdot 5$ bits presupposes a 3-place ⌜halfcross⌝ 00110; its 4th argument in $\mathbf{K}_0$ could be recovered (according to 13.8, 10, 13) from the 3rd-place outputs of the 1st and 2nd 3-place functor by means of a substitute-computation on 5.1−14, *if* all ⌜communicators⌝ are applied under 0000-creation (and stand for purely autonymous ⌜words⌝). With 9812 instead of 10092 bits there occur 861−29 autonymous functors and 859−27 communicators; 60 + 7 communicators are unfettered (in premises!). Each contracted rule contains ≤ 38 communicators out of the 11-stock, among them $\leq 12 + 3$ unfettered ones out of a $5 + 1$ -stock in $\leq 5 + 1$ premises (13.10); per index one rule contains ≤ 10 communicators (4.6,11−15,24,26), among them ≤ 4 unfettered ones in ≤ 3 premises (6.17).

Subtile partition would admit 0 as the bit of highest degree 9811; without any change of communicator-frequencies, the decimal Ψ_c-coefficient can thus be replaced by 675.401..; this will diminish only one k-bound under **1.4** (1980 instead of 1981 for Ψ_f and $n = 2$).

The autonymous output of $\mathbf{K}_0$ consists of one relator with ≥ 1 and ≤ 4 words. Such words have an *undevicesimal* numbering, different from blocks; e.g., the numeral '..' 0 with j occurrences of ' gets the code-number $\dot{5}..\dot{5}1 = 5 \cdot (19^{j+1} - 1)/18 - (5 - 1)$.

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