

KURPISHEV LOGIC 2

From the geometry of reasoning to testable prediction

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KURPISHEV LOGIC 2 is a research project by Ivan Borisovich Kurpishhev that brings together the mathematical foundations of reasoning, projective geometry and software tools for analysis. KLT refers to Kurpishhev Lambda-Truth; KLT-RBD refers to the project's reference-point database. Its overall architecture and publications are presented in the author's scientific archive: <https://kurpishhev.com/>.

The project's long-term goal is to develop a method for predicting events and states with verifiable grounds for every inference. Reference-point representations provide a basis for comparing objects; the database connects them to sources and constraints, while software performs formal checks. This week's central theme is the conditions under which such representations actually preserve the information needed for inference.

Geometry that preserves meaning

On 17 September, a mathematical atlas was prepared for four classical syllogisms—Barbara, Celarent, Darii and Ferio—in two and three dimensions. Eight coordinate diagrams are accompanied by a proof: a common injective mapping, which does not identify distinct objects, preserves inclusion, disjointness and the existence of witness objects. For example, in “All M are P; some S are M”, the same witness is transported, supporting the conclusion “Some S are P”. [1]

A significant clarification concerns the limits of geometric interpretation. Reversibility of a representation does not allow a logical implication to be reversed. A projective transformation preserves the cross-ratio λ , but does not by itself move it towards the harmonic value -1 or prove the truth of the original premises. The revised text distinguishes geometric construction, logical consequence and documentary grounds. The atlas does not discharge the general open obligations of the Desargues-Kurpishhev construction. [1]

The KLT-RBDv6 software extension adds checks of categorical forms with countermodel construction. The release document records 333 successful tests, including 29 new ones. This confirms the tested properties of the implementation, not the reliability of an arbitrary text under analysis. [2]

Which observations are needed for prediction

The mathematical release dated 16 September implements a restricted class of projective dynamics using exact rational arithmetic. For a finite set of admissible scenarios, the program determines which observations distinguish future outcomes within a specified error tolerance. [2]

The key distinction is between preserving geometric structure and knowing the law of change. The sequence 1, 2, 4 can continue with 8 if doubling is maintained, but without that assumption the next result is undetermined. A harmonic reference-point configuration does not itself select a dynamical law. The program must therefore consider alternative continuations and indicate which additional observation is missing.

The next research stage addresses uncertain reference points, shared calibration error and correlated errors. Moving from teaching models to actual measurements remains a separate task. [2]

Chemical prediction first commit then test

KLT-MATDES is being developed as a system for identifying inorganic materials with specified properties; this goal is set out in its project and technical specification:

https://kurpishev.com/chemistry/KLT_MATDES.pdf.

On 14 September, an executable SE3 log was prepared: the model, initial state, horizon and prediction are committed first, and a subsequent state is accepted in a separate operation. Comparison requires consistency of material, structure, phase, method and conditions. The first admissible result is retained, including a miss: it cannot be replaced by a later successful observation. [3]

The dossier records 50 successful software tests. However, all demonstration values are synthetic. Prediction on a real corpus, independent testing and confirmation of the physical reachability of states have not been performed. The result is therefore a tool for disciplined testing, not evidence of predictive effectiveness.

Sources and further work

Text provenance controls have been strengthened in ARBD, the author reference-point database being developed using Kant's works. Translations of the same work are grouped so that they do not enter training and evaluation simultaneously as supposedly independent sources. Interpretation comparison forms distinguish the author's text, commentary and the reader's opinion; a normative requirement is not equated with an observed fact. [2, 4]

The next tasks are independent semantic annotation, justification of measurement models, and tests with rules fixed in advance and hidden evaluation outcomes. Until these are completed, ABSTAIN remains in effect: withholding unsupported scientific conclusions. The main achievement this week is the clarification and implementation of conditions under which an inference can be tested, reproduced and, when necessary, rejected.

Documentary sources for this issue

The following are the documentary sources of the original issue; this digest does not certify that they are publicly available. Titles are translated for the reader; document identifiers are retained.

[1] "Categorical syllogisms in 2D and 3D", KLT-SYL-DK v1.1, 17 September 2026, pp. 1-2, 7-12.

[2] KLT_M2_CONTINUE_SYL_V1_1_FULL.md, 17 September 2026: sections "Method changes" and "Verification and reproduction"; retained RUN-033 and RUN-035 records.

[3] "SE3: committing a prediction and testing it against a subsequent state", v1.0, 14 September 2026, pp. 1-5, 7-10.

[4] "The full corpus as a verifiable object", RUN-026, 11 September 2026, pp. 1-6.