**Hyper Dimensional Logics**

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1. **Introduction**

This short paper adumbrates a conception of spatially-represented logics following the tradition of C.S. Pierce’s *Existential Graphs* (the immediate precursor to formal symbolic logic)[[2]](#footnote-2), G. Frege whose *Begriffsschrift* or “Thinking Notation” is the first systematic formal symbol logic and artificial language, and Hilbert Space formalisms of *Quantum Logic*.[[3]](#footnote-3)

The idea here is to represent propositions in a manner roughly summarized as “overlaying” multiple spaces on top of each other in a dimensionally enhancing way. I’ll proceed to clarify and articulate these notions in a more formal way below but will first take some time to describe and outline multiple relevant historical formalisms.

1. **Historical Precedents**
   1. **Pierce’s *Existential* Graphs**
   2. **Frege’s *Begriffsschrift***
   3. **Hilbert Space formalisms of *Quantum Logic***

Classical Quantum formalisms treat propositions as state-space vectors or points.

1. **Initial Definitions**

***Lower Dimensional Logic.***

***Logical Dimension.***

***Dimensional Enhancing.***

***Higher Dimensional Logic.***

**3.0 Symmetries and Symmetry Breaking**

I should think that we can portray disputation, that is *monologically* arguing sequentially using evidence and valid inference patterns as a kind of symmetrical relationship. In some cases, where the evidence or argumentation is preponderantly superior, the symmetry is broken and we declare a winner.

1. **Revision 0.0.1** - **4.9.18** - <https://www.linkedin.com/in/adamintaegerard/> [↑](#footnote-ref-1)
2. http://www.jfsowa.com/pubs/egtut.pdf [↑](#footnote-ref-2)
3. https://www.whitman.edu/Documents/Academics/Mathematics/klipfel.pdf [↑](#footnote-ref-3)