

# Computational Hyperincursive Discrete Majorana Real 4-Spinors Equation and Dirac Real 8-Spinors Equation

DANIEL M. DUBOIS

Centre for Hyperincursion and Anticipation in Ordered Systems (CHAOS),  
CHAOS ASBL, Institute of Mathematics B37, University of Liège,  
Grande Traverse 12, B-4000 Liège 1, Belgium  
[Daniel.Dubois@ulg.ac.be](mailto:Daniel.Dubois@ulg.ac.be) – <http://www.sia.hec.ulg.ac.be>  
[Daniel.Dubois@uliege.be](mailto:Daniel.Dubois@uliege.be) – [ddubois.chaos@gmail.com](mailto:ddubois.chaos@gmail.com)

**Abstract.** This paper gives the hyperincursive second order discrete Klein-Gordon quantum relativist equation in three spatial dimensions. This hyperincursive equation bifurcates to 4 discrete incursive real equations for computing the Majorana real 4-spinors equation. This paper demonstrates that the Majorana real 4-spinors equation bifurcates to the Dirac real 8-spinors equation, with a very original method. So, the hyperincursive discrete Majorana equation bifurcates to 8 discrete incursive real equations for computing the Dirac real 8-spinors equation.

*Keywords:* Quantum relativist system, Hyperincursive discrete equation, Klein-Gordon, Dirac, Majorana, real spinors