Schedule of Research

Jim Adams 24th September 2011

The paper 'An elementary proof of a formula on quadratic residues', which is being prepared for publication, is the source of problems in one of its proofs. As a consequence, all work is put back by three weeks, as is documented below.

A completely unscheduled work, 'Xenan Zeroes', has intervened, taking two days work. It was completed on 24th September.

All works may be subject to amendment as, when and if new results come along.

Apart from any such innovations being derived, article 2 on 'Intricate and hyperintricate numbers' is complete.

For 'Associative division algebras', article 3, a planned enhancement (which will entail taking out the word 'associative' in the title) is to extend the result to non-associative division algebras, for instance the octonions, probably using ideas inherent in the 'Cayley-Dickson construction'. This is scheduled for completion by November 2011.

'Rescaling polynomial and linear probabilities' is almost or possibly complete. Clarifications may be added to the section mentioning homology and cohomology, as and when results become available from Part 2 of 'The concept of branched spaces'. Such amendments are scheduled for insertion at least by the completion of Part 2, December 2011.

'Hyperintricate exponential algebras' was scheduled for completion by the end of August 2011. It has now been split into two, and Part I is complete. For Part II the essential task is to deal with a suitable assignation of

$$[g^{a + bi + c\alpha + d\phi}]^{p + qi + r\alpha + s\phi}$$

in terms of

$$[g^{t + ui + v\alpha + w\phi}].$$

The work on Part II reached its preliminary conclusion on 29th August, contrary to my expectations. There will be amendments and additions, since this is so recent.

'The concept of branched spaces' is under construction. The essentials of Part 1 have been completed. Part 2 is scheduled for completion by December 2011 and Part 3, which will be in the Physics section, by January 2012.

'Polynomial equations for non-commutative fields' is in some senses the earliest of the works and will be the last to be completed, by January 2012. There are two phases to construction: the semi-classical results, which will include the Galois solvable cases for hyperintricates and perturbation techniques for real polynomials, by November 2011, and the non-Galois theory, which may or may not be fully forthcoming, depending on future investigations. This latter phase will be subsumed under the work on Hyperintricate rings

‘Fermat’s little theorem for matrices’ is scheduled for completion by December 2011.

‘Hyperintricate Number Theory’ contains unscheduled work, and work on quadratic residues, which has been transferred from ‘Fermat’s little theorem for matrices’. The quadratic residues part should be finished by early October 2011.

Work on ‘Hyperintricate analysis’ was started in September 2011. It is not currently on the website.

The work on ‘Braids’ needs examples at the end. This is not scheduled for completion by any specific date.

‘An elementary proof of a theorem on quadratic residues’ was completed on 27th December 2010, but awaits translation to LATEXT and feedback from mathematicians, before it is submitted to a journal.

‘Exponential factorisation theorems’ is juvenilia, it is complete (although further checking is required) and will not be published externally.

‘Vector calculus’ is subject to incremental insertions all the time. It is semi-complete and will not be published externally.

‘Superexponentiation’ is there for documentation of my claim to be the discoverer of the hyperintricate representation. It will forever be incomplete, and if and when a work on superexponentiation is written, it will be after January 2012.