

See Preface to
Hamilton's Lectures
Schroter
not suitable for Mr. May
Princeton US
Jan 16 96

To F. G. Fitzgerald
Red Lion Court
London
Prof. King
New Haven
Ct.

Dear Sir

I send you a paper which has
a certain bearing on physics. Quaternions
are made comparatively difficult through
the modifications required in the Diff.
& integral calculus. Now it is
possible to make a Quaternion system in
which multiplication is commutative
only then you must take a different
definition of distance. However
all physical problems have their
analogous forms in this parallel world
& the manipulation is so much easier that
it may be worth while to pursue this line.
I think you will find too that if the
definition of natural rotation introduced
it becomes possible to ask definite
questions as to the possible existence

of a 4 dimensional space in which
we are restricted to a certain locus.

As with 3 over 2 so with 4 over 3 dimensions
quite new conceptions have been
introduced which are not more than
indicated of the analogy - and
without these conceptions it is impossible
to ask sensible questions.

Believe me
yours very truly
C. H. Winston

21/78