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333 Table 1. Representations of various geometric objects
Line - $L = X_1 \wedge X_2 \wedge \dots \wedge X_n$
Circle - $C = X_1 \wedge X_2 \wedge X_3$ Plane - $P = X_1 \wedge X_2 \wedge X_3 \wedge \dots \wedge X_n$
Sphere - $S = X_1 \wedge X_2 \wedge X_3 \wedge X_4$
Inversions. Finally, inversions $(x \rightarrow x_2/x)$ may be represented [17, 18] as $F(x) = eF(x)e$. Although this will not be discussed here, this becomes particularly im-

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The geometric algebra (GA) of a vector space is an algebra over a field, noted for its multiplication operation called the geometric

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product on a space of elements called multivectors, which contains both the scalars and the vector space .Mathematically, a geometric algebra may be defined as the Clifford algebra of a vector space with a quadratic form. ...

Geometric algebra - Wikipedia

It's easy to think of algebra as an abstract notion that has no use in real life. Understanding the history and the practical applications of algebra that are put into use every day might make you see it a little differently. The main idea behind algebra is

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to replace numbers (or other specific objects) by symbols.

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with new ways to reason about computational geometry, it also embeds and explains all existing theories including complex numbers, quaternions, matrix-algebra, and Plücker space. Geometric algebra gives us the necessary and unifying tools to express geometry and

Jaap Suter March 12, 2003

Joan Lasenby is a University Reader in the Signal Processing and Communications Group of the Cambridge University Engineering Department, and is a College Lecturer and Director of Studies in Engineering at Trinity

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College. In this episode we talk about Joan's research into 3D reconstruction from multiple cameras and her interest in geometric algebra.

Joan Lasenby on Applications of Geometric Algebra in ...

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The course provided an opportunity to update the material presented in the “Physical Applications of Geometric Algebra” course from 2000. Since that course Anthony Lasenby and I finished our textbook and, looking back at that older material, I decided I needed to make room for: Alternative geometric

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