AGACSE 2015 / Schedule frame

Time (min)	**29 Jul**	**30 Jul**	**31 Jul**
60	Reg.& opening*		
60	**Hestenes**	**Dorst**	**Hitzer**
3x30	*Talks*	*Talks*	*Talks*
break			
60	**Bayro**	**A. Lasenby**	**W. Rodrigues**
2x30	*Talks*	*Talks*	*Talks*
Lunch break			
2x30	*Talks*	*Talks*	*Talks*
60	**Sangwine**	**Anglès**	*Talks*
45		**C. Doran****	

* Some sort of opening has to be designed according to the accepted protocols for such events.

** Courtesy of ARM (see the Sponsors on the Web page), it will be a pre-dinner talk.

Talks. 30 min, including questions. There will be at least 30 talks (see next pages; a few proposals are still pending of refereeing). As many talks as possible will be scheduled as plenary, while the others will be in parallel in two categories: Mathematics+Physics and Engineefing+Software. For example, with 23 talk slots of 30 min, 16 would be plenary and the remaining 14 would be in parallel. Clearly, there are a number of variables that can be adjusted for fine tuning the final schedule.

Posters. The current count is 11.

Talks (30 ordered by first submission date)

Peter Lewintan:

Soap films and the Gauss map.

Augusto Miss, Lino Resendis and Luis Tovar

Quaternionic $F(p,q,s)$ Function Spaces

Samuel Wainer, Waldyr Rodrigues, Eduardo Notte Cuello, Rivera Tapia and Igor Kondrashuk:

A Clifford Bundle Approach to the Wave Equation of a Spin 1/2 *Fermion in the de Sitter Manifold*.

Ramon Gonzalez Calvet:

The geometric solution to the three-body problem and its application to Colour Image Processing and Quantum Mechanics.

Leo Dorst:

The Construction of 3D conformal motions.

Claude Daviau:

Three Clifford algebras for four kinds of interactions.

Pierre-Philippe Dechant:

The birth of E_8 out of the (s)pinors of the icosahedron.

Hongbo Li, Lei Dong, Changpeng Shao and Lei Huang:

Elements of line geometry with Geometric Algebra.

Hongbo Li:

Fundamentals of 3D Clifford bracket algebra.

Dietmar Hildenbrand, Justin Albert and Patrick Charrier:

Geometric Algebra Computing for Heterogeneous Systems.

Timo Alho

Coordinate-free evaluation of integrals in geometric calculus.

Gene Mcclellan:

Application of Geometric Algebra to the electroweak sector of the Standard Model of particle physics.

Federico Thomas and Alba Perez-Gracia:

On Cayley's factorization of 4D rotations and applications.

Alessandro Perotti:

Slice-regular functions over Clifford algebras and harmonic functions.

Margarita Papaefthymiou, George Papagiannakis, Andreas Aristidou and Marinos Ioannides:

A Conformal Geometric Algebra framework for Mixed Reality and mobile display.

Rafael Alves and Carlile Lavor:

Clifford algebra applied to the Molecular Distance Geometry Problem.

Rimvydas Krasauskas:

Unifying theory of Pythagorean-normal surfaces.

Silvia Franchini, Antonio Gentile, Filippo Sorbello, Giorgio Vassallo and Salvatore Vitabile:

A family of embedded coprocessors with native geometric algebra suport.

Vaclav Zatloukal;

Classical field theories from Hamiltonian constraint: Canonical equations of motion and local Hamilton-Jacobi theory.

E. Ulises Moya-Sánchez and Marcela Bonell Manjarrez:

Quaternion atomic phase magnification for 3D motion.

Murat An and Chueng Ji:

Construction of Clifford Representation of Spin-1 Spinors by Component Spinors and Relation of them with Left Ideal Spinors under Clifford and Grassmann basis.

Elissavet Greasidou and George Papagiannakis:

A Geometric Algebra model and generator benchmarking study for global illumination using path-tracing.

Julio Zamora-Esquivel, Alejandro Madrigal, Miguel Padilla, Allen Galaviz and Ana Paulina Cassale:

Line segments extraction from images using RBF *in* CGA.

Terje Vold:

Improved Computational Electromagnetism by Least Action.

Oliver Conradt:

Comparing Grassmann and projective algebra.

Pablo Colapinto:

The Shape of Things to Come: Composing Space with Geometric Calculus.

Peter Cameron:

Linking Gauge Theory Gravity with Quantized Impedances.

Leobardo Campos Macías, Oscar Carbajal-Espinosa, Alexander Loukianov and Eduardo Bayro Corrochano:

Inverse kinematics for a 6-dof *leg walking humanoid* (Poster submission).

Jaroslav Hrdina and Petr Vasik:

Geometric Control of Robotic Snakes Based on CGA.

Rida T. Farouki, Graziano Gentili, Carlotta Giannelli, Alessandra Sestini and Caterina Stoppato

Quaternionic polynomial problems for the construction of Pythagorean-hodograph curves

Posters (11, ordered by first submission date)

Murat Tanisli and Neslihan Sahin:

Electromagnetism-like Equations for Fluids in Higher Dimensions.

Dimiter Prodanov:

Clifford algebra support in Maxima.

Gehová López-González, Eduardo Bayro-Corrochano and Nancy Arana Daniel:

Parallel Clifford support vector machines using the Gaussian kernel.

Gehová López-González, Eduardo Bayro-Corrochano, Nancy Arana Daniel and Olivier Stasse

Bounding volumes using Conformal Geometric Algebra.

José Gerardo Soria-García, Gerardo Altamirano-Gómez, Susana Ortega-Cisneros and Eduardo Bayro-Corrochano:

FPGA *Implementation of a geometric voting scheme for the extraction of geometric entities from images*.

Linda Osuna, Humberto Caballero, Oscar Carbajal, Alexander Loukianov and Eduardo Bayro-Corrochano:

Modeling, simulation and control for a bipedal robot using CGA.

Alba Perez-Gracia and Federico Thomas:

Grasping and manipulative hand actions for kinematic synthesis.

Rodolfo Fiorini:

GA and CICT for stronger arbitrary-scale biomedical and bioengineering solutions.

Pablo Colapinto:

G*etting Versed:The Versor C++ Library Tutorial*.

Luis Lechuga-Gutiérrez, Oscar Carbajal-Espinosa and Eduardo Bayro Corrochano:

A geometric approach for PID controller design.

Ales Navrat and Radomil Matousek:

Geometric Control of a Trident Snake Robot Based On CGA.