

 Content archived on 2024-06-18



ShApes, Geometry and Algebra

Fact Sheet

Project Information

SAGA

Grant agreement ID: 214584

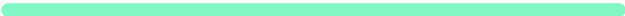
Project closed

Start date

1 November 2008

End date

31 October 2012



Funded under

Specific programme "People" implementing the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007 to 2013)

Total cost

€ 2 819 685,00

EU contribution

€ 2 819 685,00

Coordinated by

STIFTELSEN SINTEF

 Norway

This project is featured in...

Growth through innovation: 'Green cars', 'Energy-efficient buildings' and 'Factories of the future'

Objective

SAGA aims at advancing the mathematical foundations of CAD technology. Based on some exploratory work, we believe that this technology can be greatly enhanced by exploiting results and techniques from many different fields in mathematics: Algebraic Geometry, Symbolic Computation, but also Numerical Analysis and Approximation Theory. The main goal of the proposal is to exploit the diverse knowledge of the partners (from universities, research institutes, and industry) for training a new generation of mathematicians. To master the challenges of combining CAD and Algebraic Geometry, Europe needs new experts with experience from different schools of thought and applications, who have built their own Europe-wide contact net and have either gathered important industrial experience before pursuing an academic career or have academic research experience before entering industry. SAGA offers an environment of researchers from different areas with a common vision, and tailor-made training opportunities to learn geometric modeling both from the industrial and the fundamental mathematics perspective. The network-wide training will offer one large training event per year, i.e. a school, two study groups for joint problem solving, and a final workshop. Complementary skills will be trained both locally and also at the annual events that are open also for external researchers. The topics envisaged for training-through-research include how current CAD algorithms can be improved when several representations for the same object are available, with easily performed conversion between them; how algebraic and geometrical tools can be adapted to solve CAD problems; how concrete CAD challenges (like hole filling, offsets, singularities) can be dealt with using Algebraic Geometry; as well as practical problems posed by industry.

Fields of science (EuroSciVoc)

[natural sciences](#) > [mathematics](#) > [pure mathematics](#) > [geometry](#).

[natural sciences](#) > [mathematics](#) > [applied mathematics](#) > [numerical analysis](#)



Keywords

[Algebraic Geometry](#)

[Computer Aided Geometric Design](#)

[Numerical Analysis](#)

[concrete industrial CAD problems](#)

[development and use of algorithms and software tools](#)

Programme(s)

[FP7-PEOPLE - Specific programme "People" implementing the Seventh Framework Programme of the European Community for research, technological development and demonstration activities \(2007 to 2013\)](#)

Topic(s)

[PEOPLE-2007-1-1-ITN - Marie Curie Action: " Networks for Initial Training"](#)

Call for proposal

FP7-PEOPLE-2007-1-1-ITN
[See other projects for this call](#)

Funding Scheme

[MC-ITN - Networks for Initial Training_\(ITN\)](#)

Coordinator



STIFTELSEN SINTEF

EU contribution

€ 320 020,00

Total cost

No data

Address

STRINDVEIEN 4
7034 Trondheim
 Norway 

Region

Norge > Trøndelag > Trøndelag

Activity type

Research Organisations

Links

[Contact the organisation](#)  [Website](#) 
[Participation in EU R&I programmes](#) 
[HORIZON collaboration network](#) 

Participants (10)



UNIVERSITETET I OSLO

 Norway

EU contribution

€ 355 522,00

Address

PROBLEMVEIEN 5-7
0313 Oslo 

Activity type

Higher or Secondary Education Establishments

Links

[Contact the organisation](#)  [Website](#) 
[Participation in EU R&I programmes](#) 
[HORIZON collaboration network](#) 

Total cost

No data



UNIVERSITAT LINZ

 Austria

EU contribution

€ 310 309,00

Address

ALTENBERGER STRASSE 69

4040 Linz 

Region

Westösterreich > Oberösterreich > Linz-Wels

Activity type

Higher or Secondary Education Establishments

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

No data



INSTITUT NATIONAL DE RECHERCHE EN INFORMATIQUE ET AUTOMATIQUE

 France

EU contribution

€ 323 862,00

Address

DOMAINE DE VOLUCEAU ROCQUENCOURT

78153 Le Chesnay Cedex 

Activity type

Research Organisations

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

No data



UNIVERSIDAD DE CANTABRIA

 Spain

EU contribution

€ 294 585,00

Address

AVENIDA DE LOS CASTROS S/N
39005 Santander 

Region

Noroeste > Cantabria > Cantabria

Activity type

Higher or Secondary Education Establishments

Links

[Contact the organisation](#)  [Website](#) 
[Participation in EU R&I programmes](#) 
[HORIZON collaboration network](#) 

Total cost

No data



VILNIAUS UNIVERSITETAS

 Lithuania

EU contribution

€ 228 475,00

Address

UNIVERSITETO G. 3
01513 Vilnius 

Region

Lietuva > Sostinės regionas > Vilniaus apskritis

Activity type

Higher or Secondary Education Establishments

Links

[Contact the organisation](#)  [Website](#) 
[Participation in EU R&I programmes](#) 
[HORIZON collaboration network](#) 

Total cost

No data



ETHNIKO KAI KAPODISTRIAKO PANEPISTIMIO ATHINON

 Greece

EU contribution

€ 267 611,00

Address

6 CHRISTOU LADA STR
10561 Athina 

Region

Αττική > Αττική > Κεντρικός Τομέας Αθηνών

Activity type

Higher or Secondary Education Establishments

Links

[Contact the organisation](#)  [Website](#) 
[Participation in EU R&I programmes](#) 
[HORIZON collaboration network](#) 

Total cost

No data



FONDAZIONE GRAPHITECH

 Italy

EU contribution

€ 328 049,00

Address

VIA ALLA CASCATA 56/C
38123 TRENTO 

Activity type

Research Organisations

Links

[Contact the organisation](#)  [Website](#) 
[Participation in EU R&I programmes](#) 
[HORIZON collaboration network](#) 

Total cost

No data



TOPSOLID

 France

EU contribution

€ 189 490,00

Address

RUE DU BOIS SAUVAGE 7
91055 Evry 

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#)  [Website](#) 
[Participation in EU R&I programmes](#) 
[HORIZON collaboration network](#) 

Total cost

No data



Kongsberg SIM AS

 Norway

EU contribution

€ 201 762,00

Address

Havnegata 9
7010 Trondheim 

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#)  [Website](#) 
[Participation in EU R&I programmes](#) 
[HORIZON collaboration network](#) 

Total cost

No data



KONGSBERG SIM GMBH

 Austria

EU contribution

No data

Address

RAINERGASSE 4/2

1040 WIEN 

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Total cost

No data

Last update: 16 July 2019

Permalink: <https://cordis.europa.eu/project/id/214584>

European Union, 2025