



HELAS Project Office
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A European Helio- and Asteroseismology Network

Funded as a Coordination Action
by the European Commission

HELAS

The objectives of the **European Helio- and Asteroseismology Network** are:

- Coordination of activities among European groups working in helio- and asteroseismology
- Transfer of knowledge and techniques, combining the core competences of the HELAS research groups
- Enhance the synergy between helio- and asteroseismology
- Preparing for new major research initiatives, such as CoRoT, PICARD, SDO and Kepler
- Organization of conferences and workshops, open to the community
- Exchange of scientists between HELAS institutions, as well as between HELAS and other institutions
- Improve the teaching of solar and stellar physics at all levels
- Improve the public understanding and interest in solar and stellar physics



Kiepenheuer Institut für Sonnenphysik (KIS),
Freiburg, Germany



Instituto de Astrofísica de Canarias (IAC),
La Laguna, España



Department of Applied Mathematics (UoS),
Sheffield, U. K.



Institut for Fysik og Astronomi (IFA),
Århus, Denmark



Centro de Astrofísica da Universidade do Porto (CAUP),
Porto, Portugal



Max-Planck-Institut für Sonnensystemforschung (MPS),
Katlenburg-Lindau, Germany



Istituto Nazionale di Astrofisica (INAF),
Roma, Italy



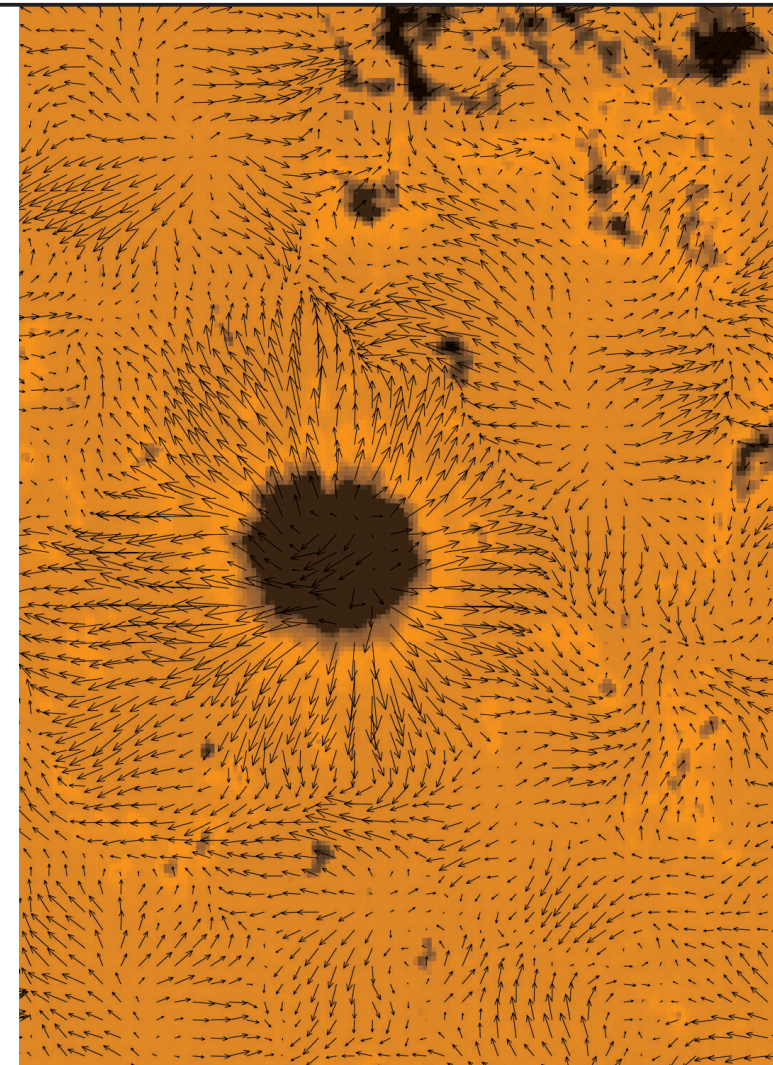
Instituut voor Sterrenkunde (IvS),
Leuven, Belgium



Instytut Astronomiczny Uniwersytet Wrocławski (IAUWr),
Wrocław, Poland



Observatoire de la Côte d'Azur (OCA),
Nice, France



HELAS

HELAS – the European Helio- and Asteroseismology Network – is a Coordination Action funded by the Sixth Framework Programme of the European Union.

Start date 1 April 2006
Duration 48 months



Project office members. From left to right:
Oskar von der Lüche, *Coordinator*; Ute Rynarzewski, *Administrative Officer*;
Cornelia Betz, *Administrative Assistant*; Markus Roth, *Project Scientist*.

HELIOSEISMOLOGY AND ASTEROSEISMOLOGY

are methods which permit investigating the physical state of the interior of the Sun and stars. The analysis is based on the observation of stellar 'quakes', oscillations of the stellar surface whose frequencies reflect conditions within. This information is crucial for understanding the structure and evolution of the objects – the stars – which dominate the chemical evolution of the Universe, are the only conceivable hosts of bodies which may carry life and, in the case of the Sun, are a fundamental condition for our existence. Seismology of stars is an important and rapidly growing field of astrophysics and plays a major role in the European astrophysical community.

HELAS

has as major objective to bring together the widely dispersed European research groups active in helio- and asteroseismology. The transfer of knowledge and data analysis techniques through HELAS will lead to a structuring of this field of research, as needed to prepare the European research community for important missions in the near future: the NASA space missions Solar Dynamics Observatory (SDO) and Kepler, and the CNES missions CoRoT and PICARD, as well as ongoing and planned ground-based initiatives.

NETWORK ACTIVITIES

The activities of HELAS cover

Global helioseismology (*Chair*: Michael J. Thompson, UoS), dealing with investigations of the overall structure and rotation of the solar interior based on global oscillation frequencies.

Local helioseismology (*Chair*: Laurent Gizon, MPS), dealing with the local structure and dynamics of the outer parts of the Sun, based on wave motions on the solar surface

Asteroseismology (*Chair*: Conny Aerts, IvS), investigating the properties of stellar interiors based on observations of stellar oscillations

In addition,

Public outreach (*Chair*: Jørgen Christensen-Dalsgaard, IFA), coordinates the outreach activities between the HELAS groups, towards the public and educational institutions, and informs the astrophysical community about HELAS.

The management and organization are dealt with by

Management (*Chair*: Oskar von der Lüche, KIS), handling the overall management and interreaction with the European Commission, and **Forum** (*Chair*: Pere Pallé, IAC) which takes care of meeting organization, the web portal and other organizational matters.

HELAS Board members

Oskar von der Lüche (*Coordinator*, KIS)
Pere Pallé (IAC)
Michael J. Thompson (UoS)
Jørgen Christensen-Dalsgaard (IFA)
Mário J. P. F. G. Monteiro (CAUP)
Laurent Gizon (MPS)
Maria Pia Di Mauro (INAF)
Conny Aerts (IvS)
Jadwiga Daszyńska-Daszkiewicz (IAUWr)
Thierry Corbard (OCA)
Markus Roth (*Project Scientist*, MPS)

HELAS Board guests

Annie Baglin (CoRoT)
Yvonne Elsworth (BiSON)
Don Kurtz (UCLAN)

Project Office

Ute Rynarzewski (*Administrative Officer*, KIS)
Cornelia Betz (*Administrative Assistant*, KIS)