Instrumentcenter for Dansk Astrofysik (IDA)
Status after the first year

DFS, June 2 – 3 2005

Kristian Pedersen & Jens Hjorth

www.astrofysik.dk

Background

Recommendation by Astronomisk Udvalg (2003)

- **Creation of national center to "consolidate the scientific returns of the Danish national investments in ESO, ESA, and NOT by creating a national center for ground- and space-based astrophysics"**
- **The center should play a key role in national strategic planning, coordination, communication, and research training with stronger emphasis on direct science output**

Successor to IJAF, but key differences

- **Ground and space**
- **Large international facilities**
- **Research training**

"Instrument center" funded by SNF (now FNU)

- **15 MDKK 2004–2007**

Goals

- **Ensure critical mass and cost-effectiveness in a few high-priority astrophysics projects**
- **Train a new generation of observational astrophysicists**
- **Focus Danish efforts in astrophysics instrumentation on productive international projects**
- **Enhance and facilitate national communication within Danish astrophysics**

Means

- **Co-finance PhD students in astrophysics**
- **Fund research assistants for typically ½ year to analyze data from high-quality Danish astrophysics projects utilizing large-scale facilities**
- **Support research with the NOT (and the Danish 1.5m telescope at La Silla until March 2006) by facilitating cost-effective approaches**
- **Organize and support Danish astrophysics workshops and meetings**
- **Focus astrophysics instrumentation on participation in international projects and coordination with space projects**

Philosophy

The philosophy of IDA reflects the change in how observational astrophysics is done over the last decade: Towards using large multi-wavelength facilities on the ground and in space, often through international collaboration, and combining observations with theory

IDA will aim to give priority to projects within the areas prioritized by Astronomisk Udvalg (cosmology and galaxy formation, star and planet formation, extreme astrophysics)

IDA focuses on direct science output. Ensure timely publication of results and optimum scientific returns of the national investments in large astrophysical facilities, including archival research.

Setup

Scientific leader: Jens Hjorth

Scientific administrator: Kristian Pedersen

Secretary: Marianne Bendtsen

Cols, advisors, local representatives:

- **Bjarne Thomsen (IFA)**
- **Jens Viggo Clausen (NBI)**
- **Niels Lund (DRC)**

Comprehensive web-site with info of general relevance for Danish observational astrophysics : www.astrofysik.dk

Operations

Daily running of IDA is intended to be informal with the purpose of minimizing administration (for IDA and DK astrophysicists)

A scientific administrator ensures that IDA is

(i) running effectively on a daily basis

(ii) firmly anchored in the Danish astrophysical community

(iii) playing a key role in coordinating and executing national strategies

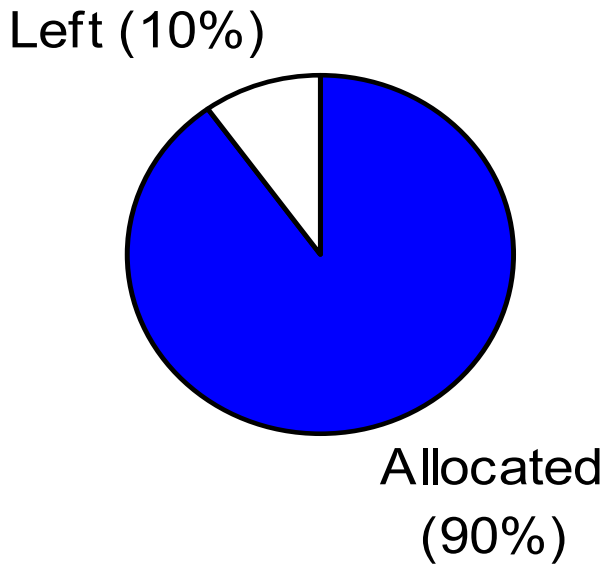
Newsletters issued 3-4 times per year

All applications to IDA evaluated by independent committee of DK scientists

Use (and help DK astronomers exploit!) co-financing schemes extensively

Status: PhD students

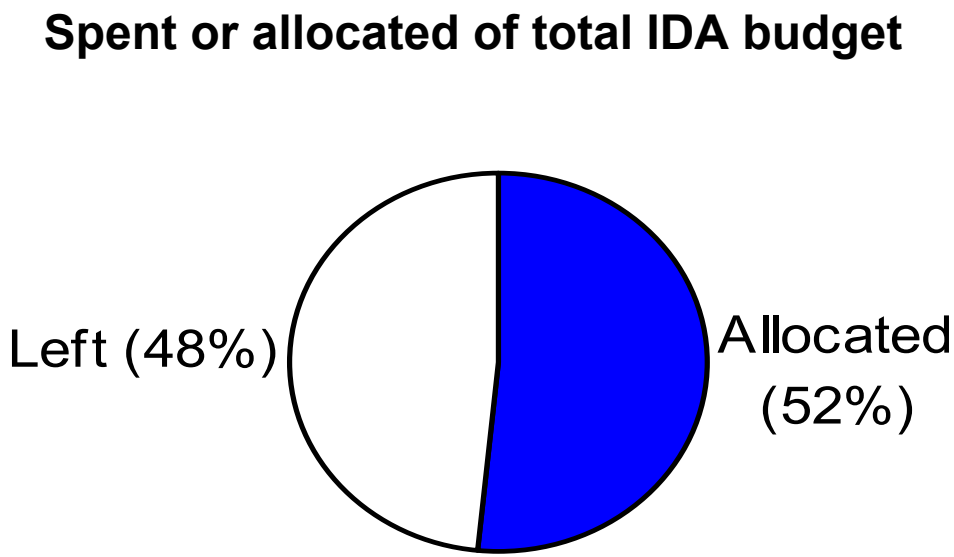
Spent or allocated of total IDA budget



Status: PhD students

PhD student	Inst.	Supervisor	Topic	FTE	Compl.
Maiken Gustafsson	IFA	D. Field	Star formation	2	2006
Henrik Nissen	IFA	D. Field	Star formation	1	2008
Kristin K. Madsen	DSC/ NBI	F. Christensen , K. Pedersen, J. Hjorth	High-energy astrophysics	1	2007
Jose Maria Castro Ceron	NBI	J. Hjorth	Gamma-ray bursts	2	2007
Christian Vinter	NBI	U. G. Jørgensen	Exoplanets	1	2007
Kim Nilsson	NBI	J. Fynbo	Hi-z galaxies	1	2007
Christoffer Karoff	IFA	H. Kjeldsen	Asteroseismology	1	2008

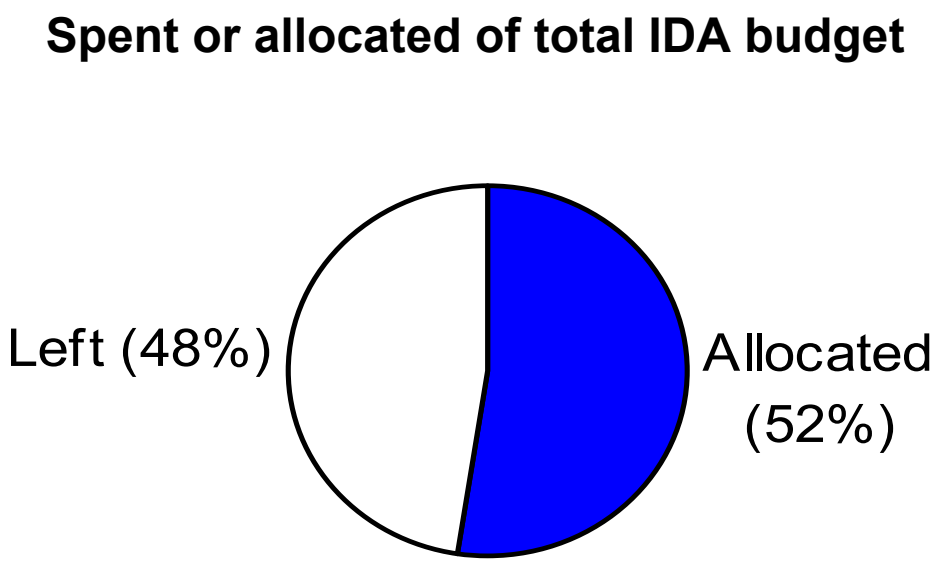
Status: Research assistants



Status: Research assistants

Researcher	Inst.	Applicant	Topic	FTE/12
Jesper Rasmussen	NBI	K. Pedersen	X-ray halos around disk galaxies – testing galaxy formation	5
Brian L. Jensen	NBI	J. Fynbo	Data reduction pipelines for NOT and the DK1.5m telescope	7
Karina Kjær	NBI	L. F. Olsen	Evolution of E and S0 cluster galaxies	1
Frank Grundahl	IFA	F. Grundahl	Critical tests of stellar evolution and the origin of abundance anomalies in globular clusters	10.5
Jérôme Chenevez	DSC	N. Lund	Nuclear synthesis in X-ray bursts	6
John K. Taylor	NBI	J.V. Clausen	Detached eclipsing binaries in stellar clusters	7
Juliana P. da Silva	NBI	U.G. Jørgensen/ Å. Nordlund	The atmosphere of exoplanets and very cool dwarfs	70 kDKK

Status: Workshops and meetings



Status: Workshops and meetings

Meeting	Dates	Inst.	Organizer
DFS/Astro meeting 2005	Jun 2005	-	AU
Mini-workshop: Detection of optical transients from the ground	April 2005	NBI	H. Pedersen, P.K. Rasmussen
Submm workshop	Dec. 20-21 2004	NBI	IDA
Mini-thinkshop: Fossil galaxy groups - nature or nurture?	Oct 20-29 2004	NBI	J. Sommer-Larsen, K. Pedersen
1st Copenhagen - Reykjavik GRB meeting	Sep 21 - 22 2004	NBI	J. Hjorth
DFS/Astro meeting 2004	Jun 2004	-	AU

Funding opportunities

You can apply for IDA support for

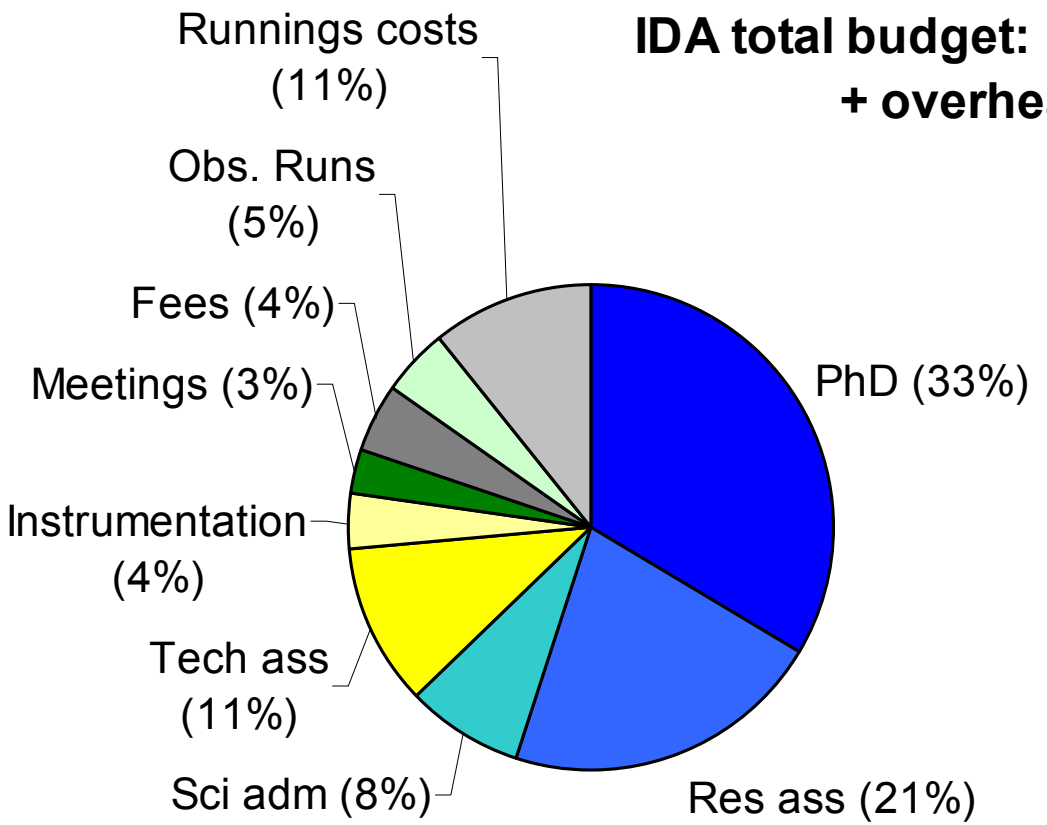
- **Co-funding of PhD students**
- **Funding of research assistants**
- **Expenses for observing programs**
- **Workshops and meetings**
- **Long term visitors**

IDA accepts applications anytime:

Check www.astrofysik.dk for procedures and application templates

Send applications and requests to ida@astro.ku.dk

Economy


IDA total budget: 12.5 MDKK
+ overhead
Runnings costs (11%)
Obs. Runs (5%)
Fees (4%)
Meetings (3%)
Instrumentation (4%)
Tech ass (11%)
Sci adm (8%)
PhD (33%)
Res ass (21%)