# Proposed Swedish Space Research Programme 2004

## Available budget

| | |
|---|---|
| **Firm SRAC budget for 2004** | **47 000 kkr** |
| **Remaining from budget of 2003** | **3 700 kkr** |
| **ESA Rosetta compensation for delayed launch** | **475 kkr** |
| **Part of FAK budget contributing to joint treatment of atmospheric projects** | **2 000 kkr** |
| **SUM** | **53 175 kkr** |

## COSTS

| | Grant | Overhead (35%) | Total |
|---|---|---|---|
| **Basic funding of research groups** | | | |
| Project grants decided 2 years ago | 550 | 193 | 743 |
| Project grants decided 1 year ago | 6 246 | 2 186 | 8 432 |
| Proposed new project grants | 26 573 | 9 301 | 35 874 |
| ***Sum:*** | ***33 369*** | ***11 679*** | ***45 048*** |
| **Associated costs** | | | |
| Odin operations (SSC) | 3 000 | 0 | 3 000 |
| Magic rocket | 300 | 0 | 300 |
| Management support at SSC for HIFI (124/02) | 300 | 0 | 300 |
| Programme support (SSC) | 300 | 0 | 300 |
| Reserve (at disposal of SRAC secretary) | 300 | 0 | 300 |
| ***Sum:*** | ***4 200*** | ***0*** | ***4 200*** |
| **Additional allocation** | | | |
| Allocation for instruments and technology | 3 927 | 0 | 3 927 |
| ***Sum:*** | ***3 927*** | ***0*** | ***3 927*** |
| **SUM (kkr):** | | | **53 175** |

# Funding of Individual Research Groups

## (All figures below are given excluding overhead)

## Space Physics

| Principal applicant | Dnr | Project title | Grant 2004 |
|---|---|---|---|
| André Mats | 109/03 | Research in Space Plasma Physics | **2 889** |
| Barabash Stanislav | 108/03 | Plasma physics of the solar system | **2 916** |
| Buchert Stephen | 113/03 | Magnetospheric Physics using Cluster, ILWS Missions and Ground-Based Instrument | **464** |
| Lundstedt Henrik | 112/03 | Solar activity and space weather | **210** |
| Lundin Rickard | 107/03 | Terrestrial magnetospheric Physics | **1 767** |
| Marklund Göran | 85/03 | Research in Space Plasma Physics | **2 773** |

## Atmospheric Physics (joint support from SRAC and FAK)

| Principal applicant | Dnr | Project title | Grant 2004 |
|---|---|---|---|
| Gumbel Jörg | 42/03 | Odin PhD position | **360** |
| Elgered Gunnar | 119/02 | Tomography methods for high resolution atmospheric water vapour measurements using GPS | **593** |
| Kirkwood Sheila | 38/03 | Odin PhD position | **407** |
| Källén | 147/01 | Variational assimilation of wind profiles in the tropics for the ESA Earth ExplorerAtmospheric Dynamics Mission (ADM/Aeolus) | **280** |
| Murtagh Donal | 136/03 | Global Environmental Measurements | **1 495** |
| Stegman Jacek | 123/03 | Studies of the Middle Atmosphere | **1 935** |

# Astronomy

| Principal applicant | Dnr | Project title | Grant 2004 |
|---|---|---|---|
| Belitsky Viktor | 73/02 | FIRST HIFI Beam Measurement Range | **1 700** |
| Bergvall Nils | 121/03 | Galaxy formation and evolution | **105** |
| Carlson Per | 80/03 | Astroparticle Physics in Space | **630** |
| Fransson Claes | 107/01 | Supernovae | **270** |
| Goobar Ariel | 72/02 | The Nature of Dark Energy and Dark matter: satellite observations of high-z supernovae | **260** |
| Hjalmarson Åke | 88/03 | Odin - Astronomy | **1 662** |
| Johansson Sveneric | 87/03 | Participation in space observations and evaluation of data from HST | **415** |
| Kuzmin Leonid | 82/03 | Imaging Arrays of Hot-Electron Nanobolometers for Terahertz Applications | **260** |
| Lagerkvist, C.-I. | 120/03 | Studies of Mercury and the BepiColombo Mission | **585** |
| Larsson Stefan | 115/03 | High Energy Astrophysics | **690** |
| Lindegren Lennart | 92/03 | Astrophysical space using Hipparcos and GAIA | **882** |
| Liseau René | 39/03 | Odin PhD position | **360** |
| Merkel Harald | 124/02 | Hot Electron Bolometric Mixers for the HERSCHEL payload | **1 750** |
| Olberg Michael | 41/03 | Odin PhD Position (plus HIFI-ICC) | **455** |
| Olofsson Hans | 114/03 | Red giant mass loss, and its effect on stellar and galactic evolution | **165** |
| Olofsson Göran | 116/03 | Experimental space research for studying star formation and the interstellar medium | **2 585** |
| Pearce Mark | 81/03 | A Cosmic Ray Balloon Experiment Program for Esrange | **110** |
| Rickman Hans | 64/02 | Studies of Small Bodies in the Solar System | **658** |
| Östlin Göran | 112/02 | Galaxy Evolution/HST | **375** |

## Exobiology

| Principal applicant | Dnr | Project title | Grant 2004 |
|---|---|---|---|
| Bengtsson Stefan | 126/02 | Microanalyses of microfossils on Earth - Preparation for ancient Earth studies and for sample return from Mars | **370** |
| Holm Nils | 70/03 | Synthesis and characterisation of peptides encoded by self-assembled monolayers on nucleic acid bases adsorbed on mineral surfaces: Relevance to pre-RNA information processing and the orgins of life | **621** |

## Physiology

| Principal applicant | Dnr | Project title | Grant 2004 |
|---|---|---|---|
| Linnarsson Dag | 128/03 | Pulmonary and cardiovascular effects of gravity and weightlessness | **948** |
| Tesch Per | 138/03 | A resistive exercise paradigm for use in space | **1040*** |

## Material Sciences

| Principal applicant | Dnr | Project title | Grant 2004 |
|---|---|---|---|
| Carlberg Torbjörn | 86/02 | Crystal Growth during Microgravity | **540** |
| Kronberg Bengt | 119/03 | Development of advanced foams under microgravity - metal foams | **199** |
| Kronberg Bengt | 118/03 | Investigation of foaming in non-aqueous systems under microgravity conditions | **425** |
| Seetharaman Seshadri | 106/02 | Thermophysical Properties of Silicate Melts | **488*** |

## Space Technology and other topics

| Principal applicant | Dnr | Project title | Grant 2004 |
|---|---|---|---|
| Brenning Nils | 93/01 | Diagnostic and modelling in the VASIMR plasma rocked prototype | **260** |
| Fuglesang Christer | 76/02 | DESIRE | **415*** |

* Not taken from the SRAC budget