

Science with Adaptive Optics

Proceedings of the ESO Workshop Held at Garching, Germany, 16-19 September 2003

Bearbeitet von
Wolfgang Brandner, Markus E Kasper

1. Auflage 2005. Buch. xx, 388 S. Hardcover
ISBN 978 3 540 25034 0
Format (B x L): 15,5 x 23,5 cm
Gewicht: 1660 g

[Weitere Fachgebiete > Technik > Sonstige Technologien, Angewandte Technik > Angewandte Optik](#)

schnell und portofrei erhältlich bei

The logo for beck-shop.de features the text 'beck-shop.de' in a bold, red, sans-serif font. Above the 'i' in 'shop' are three red dots of increasing size. Below the main text, 'DIE FACHBUCHHANDLUNG' is written in a smaller, red, all-caps, sans-serif font.

beck-shop.de
DIE FACHBUCHHANDLUNG

Die Online-Fachbuchhandlung beck-shop.de ist spezialisiert auf Fachbücher, insbesondere Recht, Steuern und Wirtschaft. Im Sortiment finden Sie alle Medien (Bücher, Zeitschriften, CDs, eBooks, etc.) aller Verlage. Ergänzt wird das Programm durch Services wie Neuerscheinungsdienst oder Zusammenstellungen von Büchern zu Sonderpreisen. Der Shop führt mehr als 8 Millionen Produkte.

Contents

Part I Adaptive Optics Instrumentation, Data Acquisition and Reduction Strategies

NAOMI – Adaptive Optics at the WHT <i>C.R. Benn, S. Els, T. Gregory, I. Söchting, R. Østensen</i>	3
Status of Adaptive Optics Projects at ESO <i>N. Hubin</i>	7
Preliminary Commissioning Results of Altair <i>J.-P. Véran, F. Rigaut, J. Stoesz, G. Herriot, B. Ellerbroek</i>	19
Lyot Coronagraphy at the Palomar and Phase-Mask Coronagraphy at the VLT <i>A. Boccaletti, J.-C. Augereau, G. Chauvin, P. Riaud, J. Baudrand, F. Lacombe, D. Rouan, A.-M. Lagrange, P. Baudoz</i>	25
PIGS – A New Wavefront Sensor Concept for ELTs <i>S. Kellner, R. Ragazzoni, W. Güssler, E. Diolaiti, J. Farinato, C. Adricciaco, R. Meyers, T. Morris, A. Ghedina</i>	31
Adaptive Optics for MUSE <i>M. Le Louarn, N. Hubin, B. Delabre</i>	36
NAOS-CONICA Observational Capabilities <i>R. Lenzen</i>	42
NACO-SDI: A Novel Simultaneous Differential Imager for the Direct Imaging of Giant Extra-Solar Planets <i>R. Lenzen, L. Close, W. Brandner, M. Hartung, B. Biller</i>	46
One Year of NACO Operations <i>N. Ageorges, L.E. Tacconi-Garman, C. Lidman</i>	53
Note on Spectroscopy with Adaptive Optics <i>M. Goto, and the Subaru AO/IRCS Teams</i>	63
Quality Control and Data Flow Operations of NAOS-CONICA <i>W. Hummel, C. Lidman, N. Ageorges, Y. Jung, O. Marco, D. Dobrzycka</i> .	69

VIII Contents

Comparison of Astrometry and Photometry of the Galactic Bulge Between HST-NICMOS and NACO Data <i>G. Pugliese, D. Bonaccini, M. Zoccali, A. Renzini, L. Tacconi-Garman . . .</i>	75
Point Spread Function Analysis of the NACO Instrument at the VLT <i>K.R.W. Tristram, M.A. Prieto</i>	79
Correlation Image Processing of Diagnostic Raw Data Collected with NAOS-CONICA <i>H. Weghorn, R. Lenzen, W. Brandner, M. Hartung</i>	83
Wide-Field Post-Processing of Adaptive Optics Images <i>A.R. Weiss, S. Hippler, M. Feldt.</i>	87
Simulations of Adaptive Optics with a Laser Guide Star for SINFONI <i>A.G.A. Brown, E. Fedrigo, P. van der Werf.</i>	94
High Order Adaptive Optics Simulation Tool for VLTs and ELTs <i>R. Conan, T. Fusco, G. Rousset</i>	97
Calibration of AO Systems. Application to NAOS-CONICA and Future “Planet-Finder” Systems <i>T. Fusco, G. Rousset, A. Blanc</i>	103
The Unique Antarctic Atmosphere: Implications for Adaptive Optics <i>J.S. Lawrence, M.C.B. Ashley, M.G. Burton, J.P. Lloyd, J.W.V. Storey . .</i>	111
Part II The Sun and (Exo-) Planets	
Adaptive Optics Observations of the Sun <i>C.U. Keller</i>	119
Penumbral Line Asymmetries Using KAOS <i>D. Soltau, T. Berkefeld, R. Schlichenmaier, A. Tritschler, L.R. Bellot Rubio</i>	129
Simulations on Solar AO Systems <i>R. Sridharan, A. Raja Bayanna, P. Venkatakrishnan</i>	132
Selected Examples of Solar and Extra-Solar Planetary Science with AO <i>L.M. Close, R. Lenzen, B. Biller, W. Brandner, M. Hartung</i>	136

Hot Massive Planets Around Nearby Young Stars – A Search with NACO at the VLT <i>E. Masciadri, R. Mundt, C. Alvarez, T. Henning, W. Brandner, D. Barrado-Navascues, R. Neuhauser</i>	146
Direct Detection of Exoplanets with Future Adaptive Optics Systems <i>C. Moutou, A.-M. Lagrange, J.-L. Beuzit, D. Mouillet</i>	152
Search for Sub-Stellar Companions Using AO – First Results Obtained with NAOS-CONICA <i>M. Mugrauer, R. Neuhauser, E. Guenther, W. Brandner, J. Alves, M. Ammler</i>	158
Part III Star Formation and Brown Dwarfs	
Adaptive Optics and Star Formation <i>F. Ménard</i>	163
High Angular Resolution Observations of Binary Brown Dwarfs <i>H. Bouy, W. Brandner</i>	174
Close Companions to Nearby Young Stars from Adaptive Optics Imaging on VLT and Keck <i>K.E. Haisch Jr., R. Jayawardhana, A. Brandeker, D. Mardones</i>	177
A VLT/NACO Survey for Triple Systems among Visual Pre-Main Sequence Binaries <i>S. Correia, T. Ratzka, M.F. Sterzik, H. Zinnecker</i>	183
Coupled Adaptive Optics and Integral Field Spectroscopy of Pre-Main-Sequence Stars <i>P.J.V. Garcia, C. Dougados, P. Ferruit</i>	189
An Adaptive Optics Search for Binaries in the Orion Nebula Cluster <i>R. Köhler, M.G. Petr-Gotzens, M. McCaughrean, J. Bouvier, G. Duchêne, A. Quirrenbach</i>	197
A Search for Close Companions in Sco OB2 <i>T. Kouwenhoven, A. Brown, H. Zinnecker, L. Kaper, S. Portegies Zwart, A. Gualandris</i>	203
Dual Imaging Observations of Circumstellar Matter in TW Hydrae: The NACO View <i>N. Huélamo, W. Brandner</i>	206

Near Infrared AO Spectroscopy of Edge-On Protoplanetary Disks with Subaru IRCS <i>H. Terada, N. Kobayashi, A.T. Tokunaga, N. Takato, H. Takami, T.-S. Pyo, M. Hayashi</i>	211
Size Distribution of Disks in the Trapezium Cluster <i>S.M. Vicente, J. Alves</i>	214
The Origin of the Molecular Flow in Orion BN/KL: NAOS-CONICA Observations <i>D. Rouan, Y. Clénet, F. Lacombe, E. Gendron, D. Field, J.-L. Lemaire</i> . . .	217
NACO and PUEO-GriF Investigating Small Scale Structures and Velocity Fields in OMC1 <i>J.L. Lemaire, D. Field</i>	223
Shocks and Star Formation in Orion: First Light with GriF <i>M. Gustafsson, L.E. Kristensen, Y. Clénet, D. Field, J.-L. Lemaire, G. Pineau des Forêts, D. Rouan, E. Le Coarer</i>	229
Imaging in Orion: NAOS-CONICA Adaptive Optics on the ESO-VLT <i>M. Gustafsson, F. Lacombe, E. Gendron, D. Rouan, Y. Clénet, D. Field, J.-L. Lemaire, A.-M. Lagrange, D. Mouillet, G. Rousset, B. Servan, C. Marlot</i>	232
AO-Assisted Observations of Ultra-Compact H II Regions <i>E.Puga, M.Feldt, C.Alvarez, T.Henning, B.Stecklum</i>	236
The Structure of the Young Stellar Outflows Revealed by High Angular Resolution [Fe II] λ 1.644 μm Spectroscopy <i>T.-S. Pyo, M. Hayashi, N. Kobayashi, A.T. Tokunaga, H. Terada, M. Goto, H. Takami, N. Takato, W. Gässler, S. Oya, Y. Hayano, Y. Kamata, Y. Minowa, T. Usuda, M. Iye, T. Yamashita</i>	242
Resolving the Arches Starburst Cluster in the Galactic Center with NAOS-CONICA <i>A. Stolte, W.Brandner</i>	248
Part IV Evolved Stars	
Adaptive Optics Science with the MMT Adaptive Secondary: Mid-IR AO Imaging of the Post-AGB Star AC Her <i>L.M. Close, B. Biller, W.F. Hoffmann, P.M. Hinz, J.H. Bieging, F. Wildi, M. Lloyd-Hart, G. Brusa, D. Fisher, D. Miller, R. Angel</i>	253

Near Infrared Imaging of Late Type Stars Using CIAO on the Subaru Telescope <i>K. Murakawa, H. Suto</i>	261
Spatially Resolved Spectroscopy of Proto-Planetary Nebulae <i>M. Goto, W. Gässler, Y. Hayano, M. Iye, Y. Kamata, T. Kanzawa, N. Kobayashi, Y. Minowa, D.J. Saint-Jacques, H. Takami, N. Takato, H. Terada</i>	264
NAOS/CONICA Imaging of the Nebula Surrounding IRAS 17340–3757 <i>M.E. van den Ancker, E.A. Magnier, L.B.F.M. Waters</i>	270
Part V Galactic Center and AGN	
Inward Bound: High Resolution AO Observations of the Galactic Center <i>R. Genzel, T. Ott, A. Eckart, R. Schödel, T. Alexander</i>	275
Infrared Excess Sources in the Galactic Center Stellar Cluster <i>A. Eckart, J. Moultaka, T. Viehmann, C. Straubmeier, N. Mouawad, R. Schödel, R. Genzel, T. Ott</i>	279
A Thermal Detection of Sgr A* ? <i>Y. Clénet, D. Rouan, D. Gratadour, E. Gendron, F. Lacombe</i>	286
Nuclear Dynamics and Star Formation of AGN <i>R. Davies, L. Tacconi, R. Genzel, N. Thatte</i>	291
NGC1068: Registration with Narrow Field of View and Morphology <i>E. Galliano, D. Alloin</i>	298
NACO Observations of NGC 1068 <i>D. Gratadour, D. Rouan, Y. Clénet, E. Gendron, F. Lacombe</i>	305
The Nucleus of Centaurus A with NACO <i>N. Häring, H.-W. Rix, M. Hartung, A. Prieto, R. Lenzen, K. Meisenheimer</i>	311
Tracing the Coronal Line Region in AGN with VLT/NACO: The Very First Results <i>O. Marco, A. Prieto</i>	315

Part VI Galaxies and Cosmology

Adaptive Optics Observations of Stars in Globular Clusters and Nearby Galaxies <i>T.J. Davidge</i>	323
Surface Brightness Fluctuations: A Case for Extremely Large Telescopes <i>D. Gouliermis, W. Brandner, D. Butler, S. Hippler</i>	334
A Near-IR Adaptive Optics Imaging Survey of Nearby QSOs <i>O. Guyon, D. Sanders, A. Stockton</i>	338
Altair Observations of 3C273 <i>J.B. Hutchings, J. Stoesz, J.-P. Véran, F. Rigaut</i>	344
Near-Infrared High Resolution Spectroscopy of High-z QSO Absorption Systems with the Subaru Adaptive Optics System <i>N. Kobayashi, T. Tsujimoto, Y. Minowa</i>	352
Survey of a Wide Area with NACO (SWAN): Cosmology Near the VLT's Diffraction Limit <i>A.J. Baker, R.I. Davies, M.D. Lehnert, R. Genzel, R. Hofmann, S. Rabien, N.A. Thatte, W.J. Viehhauser</i>	359
Subaru Deep Field with Adaptive Optics <i>Y. Minowa, N. Kobayashi, Y. Yoshii, T. Totani, H. Takami, N. Takato, Y. Hayano, M. Iye</i>	365
Using AO to Identify Damped Lyman α Absorption Systems at Redshift $z \sim 2$ <i>K. Roth, A. Baker, M. Edmunds, O. Guyon</i>	369
Selection of Extragalactic Targets for AO and VLTI Observations <i>J. Zuther, A. Eckart, W. Voges, T. Bertram, C. Straubmeier</i>	375
Distance Measurement with Adaptive Optics-Assisted Imaging: Looking Towards the Future <i>D.J. Butler</i>	378
Author Index	385