

ASSA Symposium 2012

12 to 14 October 2012, South African Astronomical Observatory,
Cape Town

Looking back, Looking forward



Welcome to the Symposium 2012 of the Astronomical Society of Southern Africa

The theme of the symposium, *Looking back, Looking forward*, reflects the significance of the year 2012 for astronomy in South Africa. Among others, organised amateur astronomy in South Africa celebrates its centenary, and earlier this year there was the momentous decision to host the major part of the Square Kilometre Array in Africa. Thus, the symposium will look back towards some historical roots, but also towards the future. Presentations are by professional as well as amateur astronomers. In addition to the main theme, the broad topic of outreach and communication is also addressed as a matter of common interest.

In addition to attending the presentations, we hope you will make use of the ample opportunities to socialise with other participants during the Friday evening braai, Saturday evening dinner, lunch times and coffee breaks. In addition we have organised an imaging processing workshop, a visit to the Iziko Planetarium, and a tour of the SAAO facilities after the public talk on Saturday evening by ASSA President Ian Glass.

The local organizing committee is grateful to the South African Astronomical Observatory for making their facilities available to us and for their general cooperation in making this symposium possible. Furthermore, we are deeply indebted to all our speakers for being prepared to participate by sharing some information and insights. Our thanks also go to SAASTA for folders and stationery, Oxford University Press for their sponsorship and especially also to the helpers behind the scenes who assisted us with advice, administration and general hands-on hard work.

We hope this will be a memorable event for all, and especially that those who have come from other parts of the country will enjoy your stay in Cape Town.

Practical arrangements

We request that participants note the following:

- **Parking** is behind the SAAO Auditorium or under the trees next to the main buildings
- **Cash payments** for outstanding symposium fees will be possible before the start of each morning session and during the breaks
- **Questions to speakers:** because we have a full programme, question time is restricted to time left over after each presentation within that particular time slot. Speakers will generally be available for further discussions during the breaks.
- **Open night, Saturday:** in case of rainy weather, all the indoors activities, including the talk and visits to some of the SAAO facilities, will still take place

If you have further questions or requests, please feel free to ask any member of the local organizing committee for assistance. Where we can, we will help.

Programme

Saturday 13 October 2012

Morning Session

Chair: Lia Labuschagne (Chair, Cape Centre of ASSA)

Brief introductory remarks by Chairperson (09:00)

General welcome by Ian Glass, president of ASSA (09:05)

Justin Jonas (09:15-09:55)

SKA and Rhodes University, j.jonas@ru.co.za

The Square Kilometre Array

Africa has been selected to host the mid-frequency dish array of the SKA, which will be one of the largest scientific infrastructures in the world. This presentation will give an overview of the activities of the SKA South Africa project, including preparation of the site proposal, the design and implementation of the MeerKAT, the Human Capital Development Programme, the African VLBI Network, and the C-BASS and PAPER experiments.

Jasper Horrell (09:55-10:40)

jasper@ska.ac.za

Interesting Technical Aspects of the SKA

This talk is partly tutorial in nature and also focuses on some of the technical challenges that radio astronomy and the SKA brings. We look at parts of the signal chain for a radio telescope array, how this links to optical telescopes, and focus on imaging challenges in particular. Also addressed are some of the computing/data rate issues that accompany the new instruments.

Maciej Soltynski (10:40-11:10)

ASSA Scholarship Convenor, maciej@telkomsa.net

Galaxy Clusters

Galaxy clusters are the largest known gravitationally-bound objects in the Universe and form the densest part of the large-scale structure of the universe. I will discuss their nature and formation, and how observations involving galaxy clusters have already, and will in the future, contribute to our understanding of dark energy.

Coffee break (11:10-11:30)

Dale Liebenberg (11:30-12:00)

Port Elizabeth, dalelieb@iafrica.com

Astrophotography from a backyard observatory

Since the late 1990s, digital photography and advances in telescope technology and associated software have allowed amateurs to not only take visually pleasing images of space, but also contribute to science. This talk will give a general overview of what is now possible for amateurs to achieve. Based on the presenter's own experience, topics will include data capturing, image processing and typical hardware requirements.

Auke Slotegraaf (12:00-12:30)

Somerset West. Chairman, ASSA Dark Sky Section,

auke@psychohistorian.org

Some open clusters I didn't discover

Open clusters are an important species of galactic inhabitants. Their study sheds light on fundamental galactic properties and gives insights into stellar evolution. Before they can be studied, however, they need to be discovered. My talk will briefly outline this identification process, and describe the contributions made by amateur astronomers in compiling a more complete census of galactic open clusters.

Lunch break (13:00-14:00)

Afternoon session

Chair: Logan Govender (Chair, Durban Centre of ASSA)

Barbara Cunow (14:00-14:30)

Pretoria Centre, Barbara.Cunow@gmail.com

Doing astrophotography with a DSLR on a tripod

I will present images of the night sky which I have taken with a modified DSLR on a tripod in urban regions in both the southern and the northern hemispheres. The images obtained so far include all 88 constellations, all 110 Messier objects and a number of NGC and IC objects down to about 10th magnitude. Each picture is a combination of a large number of short exposures, and I will show the procedures used for taking and processing the individual images and how the light pollution contribution is removed from the data. This project is an example of what can be achieved in astrophotography with minimum equipment from an urban site, and the techniques presented here are an effective tool to get people interested in the subject no matter where they are.

Johann Swanepoel (14:30-15:00)

Garden Route Centre, jgfswanepoel@gmail.com

The shaping and testing of two 20" optical telescope mirrors

The purpose of the presentation will be to share my experiences and knowledge gained in the making of two 20" F4.3 telescope mirrors. It will cover details of a versatile machine that was built for the grinding, polishing and figuring of the mirrors. It will further include details of the various full and sub-diameter tools that were made and used. An explanation will be presented on the optical testing methods used throughout the figuring process, including an improved application of the Foucault test and the corresponding digital data reduction techniques.

Allen Versveld (15:00-15:25)

Pretoria Centre, Allen.versveld@gmail.com

Astronomy Online

Astronomy outreach is understood to be vitally important, both to inspire future astronomers and as a popular and accessible means to offer a scientific perspective to the general public. The various incarnations of the Internet offer a range of new opportunities to conduct this outreach, letting us reach larger and more diverse audiences than ever before. The online astronomy space is currently dominated by American voices, but there is still plenty scope for local writers to speak to South Africans about our unique skies, our vibrant amateur astronomy community and big astronomy projects in Southern Africa.

Neville Young (15:25-15:50)

Pretoria Centre, nevyoung@starwaders.com

Lessons Learned in Outreach

In my 25 years of active involvement in the Pretoria Centre of ASSA, I have thoroughly enjoyed interfacing with scholars and the general public. This interaction has led me to an understanding of what the public wants to know and how to explain astronomy concepts to them. Capturing the attention of students with breathtaking views through the telescope and quoting huge numbers no doubt impresses, but leaving the students with a genuine understanding that they can take away with them and use as a base towards a further appreciation of astronomy and science requires particular techniques. I have used my experience to develop models which effectively replace 30 minutes of words and much confusing arm waving. This talk presents the lessons I have learned which form the basis of my approach to outreach. I took this same approach in a book that I have written. The book was released a few months ago.

H.J. van Heerden (15:50-16:05)

University of the Free State, vanheerdenhj@ufs.ac.za

ASSA's contribution to Bloemfontein's Two Observatories' Project

Bloemfontein's Two Observatories Project was launched in 2011 by the Physics Department at the UFS in close collaboration with ASSA Bloemfontein and the Free State Department of Economic Development, Tourism and Environmental Affairs (DETEA). The aim of the project is to preserve Bloemfontein's two observatories, namely, the Boyden Observatory and the Lamont Hussey Observatory, and to develop these facilities for academic, public and educational use.

The last 20 years have seen a rapid revival of astronomy in Bloemfontein. Boyden Observatory was upgraded in several different phases, and included the refurbishment of the Boyden 60-inch telescope. An active astrophysics research group was established at the UFS. At this time, a long-held dream to establish a planetarium in Bloemfontein is about to be fulfilled at the old observatory on Naval Hill. This talk will outline the involvement of ASSA in public and educational events including astronomy fairs and other outreach events, renovation and improvements of old telescopes, and finally, in historical research.

Tea break (16:05-16:30)

Keith Gottschalk (16:30-17:00)

Cape Centre, UWC, kgottschalk@uwc.ac.za

Astronaissance: Communicating Astronomy and Space to the African Imagination

Astronaissance neatly conceptualizes the crossover between the African Renaissance, the revival of Astronomy in Africa, and the rise of Astronautics and cognate space sciences. Story-telling, painting, engraving, writing, and above all, viewing the heavens above, have always been amongst the strategies for communicating this excitement and wonder. Today the Internet, learned societies, media, and public outreach projects are crucial when, for the first time ever, a majority of Africa's people now live under the light-polluted skies of our continent's towns and cities. Space-related products and services are woven into the fabric of our daily life as never before. Policy-makers and allocators of resources need to see as essential to their strategy communicating to Africa's citizens, voters, and taxpayers, the necessity of Astronomy, Astronautics, and the other space sciences.

John Menzies (17:00-17:45)

SAAO, jwm@sao.ac.za

Extrasolar Planets

Over 800 extrasolar planets (planets associated with stars other than the Sun) have been discovered by a variety of methods. In this talk I will give an outline of the detection methods, concentrating on those techniques employed by several different programmes at Sutherland.

Magda Streicher (17:45-18:05)

Polokwane, Magdalena@mweb.co.za

Collection of Pencil Sketches of Astronomers

Twenty-three original pencil sketches of astronomers who have left their mark in astronomical history, hand-drawn by Kathryn van Schalkwyk. A brief remark about every figure including Barnard, Bennett, Herschel, Abell, Overbeek, Messier, Farell. My intention is to present the collection to the President of ASSA, Ian Glass, during the proceedings as a contribution to the Observatory Library.

Saturday evening

Dinner (18:15-19:15)

Ian Glass, President of ASSA (20:00-20:45)

SAAO, Glass.ian@gmail.com

Public talk: Nicolas-Louis de La Caille at the Cape

In 1751-53 Nicolas-Louis de La Caille of the Royal Academy of Sciences in Paris was the first important scientist to visit the Cape. At the age of 39 he came to the Cape and built an observatory close to Rogge Bay, near the present-day Strand and Heerengracht streets. From this he surveyed the southern sky through a telescope: the first systematic survey made in either hemisphere. He named fourteen new constellations after the scientific instruments of the time, except for one, Mensa or Table Mountain. Other scientists in France had just found that the Earth is not round, but is flattened towards the North Pole. La Caille decided to measure its shape in the south by means of astronomical observations and a ground-based survey from Cape Town to the Piketberg. He was astonished to find that the planet seemed to be slightly pear-shaped. La Caille kept a most interesting journal of his stay at the Cape containing, besides scientific notes, many comments on the colonists, the natural surroundings and other matters. His precise writing avoided the sensationalism of earlier visitors.

Talk followed by telescope viewing and a tour of Observatory, McClean Telescope and Astronomical Museum until about 21:30

Sunday 14 October 2012

Morning session

Chair: Case Rijdsijk (Chairman, Garden Route Centre and Editor, MNASSA)

Chris de Coning (09:00-09:30)

Historical Section, ASSA, Musca.crux@gmail.com

Cape Astronomical Association: Origins of ASSA

The Cape Astronomical Association was formed 100 years ago, in October 1912. As far as we know, this was the first astronomical association in South Africa. The initiative resulted from public interest in astronomy after the re-appearance of Halley's comet the previous year. From the beginning, the society was a close co-operation between amateur and professional astronomers. In fact, the founding meeting held by amateurs, was postponed in order to invite professional astronomers to join. SS Hough, Astronomer Royal at the Cape of Good Hope became the first Honorary President. Ten years later this association gave rise to the Astronomical Society of South Africa (ASSA). The talk will also discuss the ASSA archives housed in Cape Town.

Atze Herder (09:30-10:00)

Johannesburg Centre, ASSA, awherder@wol.co.za

History, Union Observatory Johannesburg

This presentation is illustrated with some of the many pictures appearing in Vermeulen's book *Living amongst the Stars*, which was republished not so long ago. It starts with the work done by David Gill at the Cape Royal Observatory on astrophotography leading to JC Kapteyn's contribution to the Cape Photographic *Durchmusterung* and the subsequent friendly relationships with observatories in the Netherlands. The opening of the Transvaal Meteorological Department in 1905 is illustrated, leading to the first astronomical ventures. By 1910 the observatory was committed to southern sky mapping and continued along this path until 1938. The successive telescopes are illustrated. The presentation continues with sketches of the Union and Republic Observatory directors and shows some of their contributions to astronomy and timekeeping. Co-operation with Leyden Observatory is shown at the Broederstroom annex.

Case Rijdsijk (10:00-10:30)

Chairman Garden Route Centre and Editor, MNASSA

particles@mweb.co.za

Analogies in Astronomy and Physics

Both astronomy and physics often have to deal complex concepts and one way to address this problem is by using analogies. However, many of these frequently require a high level of prior knowledge, reducing, or even nullifying, the analogy's effectiveness. In addition it needs to be understood

that any analogy serves a limited purpose: it cannot be extended beyond its intended objective. This will use some well-known, not so well-known and new analogies in astronomy and physics using usually understood prior knowledge.

Lia Labuschagne (10:30-11:00)

Chair, Cape Centre, Grinz50@gmail.com

Talking about astronomy in the Internet era

In a world where busy people complain about information overload, it is a challenge to communicate effectively about any topic - and that includes science in general and astronomy in particular. People's communication needs, habits and preferences are changing rapidly - and at the same time there is a constant flow of useful data and interesting information about astronomy from a myriad of sources. Lia will look at the context of communicating about science and touch on some of the ways in which we can ensure that our communication is interactive, integrative and imaginative. She will also touch on the potential of e.g. social media and mobile technologies to integrate with more traditional channels of communication and outreach.

Coffee break (11:00-11:30)

Reneé Kraan-Korteweg (11:30-12:15)

Professor of Astronomy, UCT, kraan@ast.uct.ac.za

Large MeerKAT Survey Proposals

MeerKAT is South Africa's SKA precursor telescope and will consist of 64 SKA-ready radio dishes. This array of telescopes is currently under construction near Carnarvon in the Northern Cape and is expected to start full scientific operations in 2016. After a few words on the main science goals of the SKA, I will give an overview of the large legacy survey projects that have been defined for MeerKAT, and give more details on the ones that are UCT-led. This will include some of the observations that have been performed to-date with KAT-7, the MeerKAT technology demonstrator.

David Buckley (12:15-13:00)

Southern African Large Telescope, dibnob@sao.ac.za

What's Up with SALT?

This talk will give a review of SALT, the issues we dealt with in getting it going, the first science results and the future possibilities.

Lunch break (13:00-14:00)

Afternoon session

Chair: Maciej Soltynski, ASSA Scholarship Convener

Bruce Bassett (14:00-14:45)

African Institute of Mathematical Sciences,

Muizenberg, Bruce.a.bassett@gmail.com

Observational Cosmology: a 30 year window

We review the amazing progress that has been made in observational cosmology over the past 15 years, discuss the big open questions and look forward to the incredible changes that we can expect in the next 15 years.

Berto Monard (14:45-15:15)

Klein Karoo Observatory

bmonard@gmail.com

Observing programmes at the Bronberg and Kein Karoo Observatories

Two observatories and their environment are presented and the observing instrumentation discussed.

A brief introduction to variable stars and differential photometry are given.

Five major observing programmes are described, observing results shown and merits discussed.

The presentation will include many photographs and diagrams

Greg Roberts (15:15-15:45)

Country member, Pinelands

grr@telkomsa.co.za

Tracking Space Debris-including Spy Satellites

Space debris is becoming an ever-increasing threat to artificial earth satellites. This talk describes the amateur contribution to detecting such debris and outlines the various techniques used and results achieved.

Coffee break (16:45-16:15)

Nicola Loaring,

SAAO, SALT, nsl@sao.ac.za

The SAAO Outreach Programme

Nicola will present an overview of the outreach programme at the South African Astronomical Observatory (SAAO). Her talk will outline the aims of the programme and briefly summarise the initiatives used by the SAAO to reach learners, educators and the general public. The scale of the programme will be examined and a few recent highlights mentioned along with exciting future opportunities.

Anthony Lelliott (16:45-17:15)

Wits University, Tony.elliott@wits.ac.za

Astronomy and the School Curriculum in South Africa

The presentation provides an analysis of the current South African school curriculum in terms of astronomy content. When the curriculum was revised in the 1990s and early 2000s, astronomy was moved from the geography curriculum into the natural sciences. At the primary and junior secondary school level, basic astronomy content is relatively well covered in terms of the solar system and 'space science', with relatively little reference to current issues that occupy astronomers and cosmologists. Further there is a paucity of astronomy in the FET level of schooling (grades 10-12) so that there is no sequence of conceptual development of astronomical topics from upper primary school to matric level. The presentation considers the issues raised by Adams and Slater (2000), Sadler (2001) and Pasachoff

(2001, 2002) in the USA, regarding the sort of astronomy that should be taught at school and early tertiary level. In view of the positioning of South Africa as an astronomy 'hub', the consequences of the current status of astronomy in the school curriculum are discussed, and recommendations for its development are made.

Closing of Symposium: (17:15)

Ian Glass, President of ASSA

Our Speakers



David Buckley

David Buckley is currently SALT Science Director of the Southern African Large Telescope (SALT) and has been involved in the project since its inception, being appointed as SALT Project Scientist and since 2005, as SALT Astronomy Operations Manager. He holds MSc (University of Canterbury, NZ) and PhD degrees (Australian National University) and over his career he has been an author or co-author of over 280 published articles, with approximately 130 in refereed journals, mostly in the area of accreting compact binary stars. He is also currently a Senior Raman Fellow, involved in ground-based observing support of ASTROSAT, the Indian X-ray satellite due for launch in 2013. David is also involved in several African initiatives to establish observatories Ethiopia and Kenya.

Barbara Cunow

Barbara's affiliation is the University of South Africa (UNISA) in Pretoria, where she was appointed as an astronomer from 1996 until 2009, first as Lecturer, then as Senior Lecturer and finally as Associate Professor. She obtained a PhD in astronomy in 1994 at the University of Münster in Germany. Since 2009 she has been a disabled employee of Unisa, being on early retirement due to ill health. Her main research topic was the study of dust and stellar populations in spiral galaxies. This included observations of galaxies and data reduction, and the modelling of images of

dusty galaxies using radiative transfer methods. Furthermore she did photographic and CCD photometry of galaxies using CCD imaging, near-infrared imaging and image processing.

Chris de Coning

Chris de Coning was a lecturer in history at Vista University Mangaung Campus. While living in Bloemfontein, he was attracted to astronomy and joined the local centre of ASSA. In 1996 he moved to Cape Town and now works as a tour guide in the Western Cape. He is the director of the Historical Section of ASSA, developed a website on the history of astronomy, helped to convene the first symposium on the History of Astronomy for Africa, and is a member of the Friends of the Cape Town Observatory, an organisation that sets out to preserve historically important telescopes and buildings.

Anthony Lelliott

Tony has worked in teacher education since 1987, graduating with a PhD in astronomy education in 2007. He is Senior Lecturer in the Marang Centre for Maths & Science Education based in the School of Education, University of the Witwatersrand. His research interests are astronomy education, informal learning in science (particularly school visits to museums, science centres etc.), out-of-school science learning as well as evolution and biotechnology

education. He supervises PhD, Masters and Honours students and teaches various courses in science education and the sciences.

Ian Glass

Ian has a BA from Trinity College Dublin and a PhD in physics from the Massachusetts Institute of Technology. He retired recently from the SAAO, where he led the effort in infrared astronomy. He works at present on astronomical history and has written several books including *Handbook of Infrared Astronomy*, *Revolutionaries of the Cosmos - the Astrophysicists*, *Proxima, the nearest star (other than the Sun)* and *Nicolas-Louis de la Caille, Astronomer and Geodesist*, the latter to be published before the end of this year by Oxford University Press. A French edition will follow soon thereafter.

Atze Herder

Atze studied Information Technologies at the University Twente in The Netherlands from 1981 to 1987. He worked for Baan until his emigration to South Africa (1991), when he started to work for Intergraph, a company delivering software for the process industry and also GIS applications. Since 2003 he worked as an independent IT consultant, lastly finishing a 2-year project for Kraftfoods MEA as the interim Infrastructure Manager for sub-Saharan Africa. He has been a member of the Royal Dutch Society for Astronomy and Meteorology since 1976 and served in various boards in the 1980s, particularly the Dutch Comet Section and the Dutch Occultation Association. In South Africa has served a few years as a member of the ASSA Council as well as a member of the committee of the ASSA Johannesburg Centre.

Jasper Horrell

Dr Jasper Horrell has been working full-time for the SKA SA Project since 2005 with most of those years spent with a scientific computing focus. At present, his role is General Manager: Science Computing and Innovation and he also serves as part of the project executive. An additional area of his attention is the interaction with the international SKA project and MeerKAT integration with Phase 1 SKA. Jasper has a background in physics, electrical engineering, radar consulting, commercial software development and now radio astronomy.

Justin Jonas

Justin was born in London and received his MSc (1983) and his PhD(1999) from Rhodes University. He joined the SKA team as project scientist in 2003 and since 2009 has been the Associate Director: Science & Engineering, South African SKA Project Office, NRF & DST (a joint appointment with Rhodes). Before that he was the Head of Department, Department of Physics & Electronics at Rhodes University (2002-2007) and the Managing Director, Hartebeesthoek

Radio Astronomy Observatory (HartRAO), (also a joint appointment with Rhodes). His research interests include radio astronomy (supernova remnants, extended galactic radio emission, cosmic microwave background radiation, radio pulsars and transients), electronic instrumentation (radio frequency, analogue and digital systems, embedded control systems), digital signal processing (hardware and software), and high performance computing, particularly reconfigurable computing. He has served or serves on numerous national and international committees, including the executive committee of the National Research Foundation (2003-2006) and the ASTRON Science Advisory Committee (2009-2011). He is currently serving as the International Chair of Commission J (Radio Astronomy) of the International Radio Science Union (URSI) (2011-2014). His personal interests include marathon running, hiking, sailing, model boat building and carpentry

Renée C. Kraan-Korteweg

Prof. Kraan-Korteweg is Chair of Astronomy and Head of the Astronomy Department at the University of Cape Town (UCT), and co-director (and founder) of the Astrophysics, Cosmology and Gravity Centre (ACGC). Before joining UCT in 2005, she worked at the University of Guanajuato in Mexico, the Observatoire de Paris-Meudon, the University of Groningen, (NL, 1991-1994) on a fellowship from the Dutch Royal Academy of Sciences (KNAW), and the University of Basel (CH), her *alma mater*, where she studied and received her PhD (1985). Her research interests lie in the large-scale structure of galaxies, cosmic flow fields and the continuing controversy on the scale of bulk flows, with particular emphasis on uncovering the galaxy and mass distribution hidden by Milky Way using multi-wavelengths approaches, as well as systematic HI surveys. Renée is a member on various national and international committees (e.g. Academy of Science of South Africa; SA Astronomy Desk; SA SALT Time Allocation Committee; IAU Executive Committee on Future Large Scale Facilities; SKA Pathfinder HI Surveys Coordination Committee PHISCC), and was elected Vice-President of the IAU (International Astronomical Union) at its General Assembly in Beijing in August 2012.

Lia Labuschagne

Lia (Chair of the Cape Centre of ASSA), is a freelance writer, editor and communication consultant with degrees in English literature (UJ) and an MDP in marketing (UNISA). She writes for various publications and works with clients in the fields of science, technology, engineering, sustainability, environmental issues, architecture, music and business development. Her experience includes positions in senior management at blue chip companies nationally and she gained a further seven years' work experience in Europe. Her life-long

interests include astronomy, technology, literature, music, photography, art, crafts, cricket and cats.

Dale Liebenberg

Dale Liebenberg, a professional engineer and construction project manager, obtained a BSc Eng. (Electrical) from the University of Stellenbosch and an MBL from UNISA. He is the CEO and Chairman of Ballenden & Robb Consulting Engineers. His hobbies include astrophotography, a bit of gardening and being a grandfather to four grandchildren.

Nicola Loaring

Nicola received her D.Phil in Observational Cosmology from the University of Oxford, UK (2002). She is currently the Outreach Astronomer at the SAAO and before that was a SALT Astronomer at the Southern African Large Telescope, with duties relating to the commissioning of SALT, scientific observations and support. Prior to that (until 2005) she was a research fellow in Astrophysics at the Mullard Space Science Laboratory (UK). Her experience in astronomical research, classroom teaching, university lecturing, tutoring and demonstrating both locally and in the UK has led her to become involved, among others, with curriculum development for the NASSP programme and in organising the NASSP-SAAO Winter School.

John Menzies

John has been a long-term member of SAAO, and has been involved with the PLANET collaboration in the search for extrasolar planets since 1995. He is currently working under contract to SALT on the project to replace the primary mirror edge sensors, which are intended to maintain mirror alignment for periods up to a week.

Berto (LAG) Monard

Berto was born in Belgium in 1948 and obtained his MSc in Electro-mechanical Engineering at the Catholic University of Louvain in 1974. He moved to SA with his wife and 3 children in 1981 and worked as a specialist in optical radiometry at the CSIR. He started observing variable stars in the early nineties and got more seriously involved after moving to the Bronberg area. He was invited to join the Centre for Backyard Astrophysics (CBA) for doing time-series photometry of cataclysmic variable stars in 1996, an offer he took up in 2001. In 2006 he was invited by the MicroFUN group to join them in monitoring gravitational lens events. In the mean time Berto had discovered over 100 supernovae at his Bronberg Observatory and also had been the first amateur observer ever to discover the afterglow of a gamma ray burst using commercial hardware (2003). Berto received the Gill Medal from ASSA in 2004.

Case Rijdsijk

Graduated from UCT, having studied physics and maths in addition to astronomy under Prof. R H Stoy at the SAAO. He taught physics and maths in Zimbabwe and South Africa before returning to the SAAO full-time in 1995 where he started the Science Education Initiative and managed the Friends with the Universe programme during SA's first Year of Science and Technology. Case is a past president and secretary of ASSA and an award-winning science communicator. He took early retirement from the SAAO in 2003 to concentrate on his interests in particle physics and massive stars, but is still actively involved in many outreach programmes. He is the current editor of MNASSA.

Greg Roberts

Retired professional astronomer (Republic Observatory and SAAO). Greg has been tracking satellites as an amateur since 1957, both by optical and radio means. In the past ten years he has made approximately 40 000 positional observations of classified satellites.

Auke Slotegraaf

Auke heads up the Deep-Sky Observing Section of ASSA. He is editor of the *ASSA Sky Guide Africa South* and also has a keen interest in the history and sociology of astronomy. His latest book, co-authored with Dieter Willasch and titled *Pearls of the Southern Skies*, is published by Oculum Press and appears in November.

Maciej Soltynski

After a career involving scientific computing and management at IBM South Africa, Maciej re-invented himself as a research futurist at Stellenbosch University, and he now independently consults as a futurist specialising in technology. Maciej's passionate interest is astronomy and cosmology, and he has a BSc (Honours) degree in astronomy. He is a past president and an honorary member of ASSA and serves on its Council and Scholarships Committee. He was a founder of the annual publication *Sky Guide, Africa South* and was its assistant editor from 2004 to 2011.

Magda Streicher

Magda is a past president of ASSA and an award-winning deep-sky observer. Her latest book, *Astronomy Delights*, is a personal account of her observations of some of the most charming Southern Hemisphere deep-sky objects.

Johann Swanepoel

Johann is a retired professional electrical engineer, who in the past was involved in various roles in the telecommunications industry. He has had a lifelong interest in mirror and telescope-making and is

inspired by the astonishing variety and remarkable strangeness of the cosmos being discovered in our time.

Pat van Heerden

Pat is (member of ASSA Bloemfontein Centre since 2005; treasurer) is a PhD student in astrophysics at University of the Free State (UFS). Official and unofficial jobs: Professional Officer: Academic in the Department of Physics, UFS. Observer, researcher and technician at Boyden Observatory and public outreach tour guide at Boyden Science Centre. He is interested in technology, engineering, history, general literature and astronomy.

Allen Versveld

Allen is an IT professional and amateur astronomer who's been fascinated by the stars since before he can remember. He started the Urban Astronomer

website three years ago, and it has taught him more than he ever expected about both online publishing and astronomy.

Neville Young

Neville is an electronics technician turned technical writer turned author. He Joined the Pretoria Centre of ASSA in October 1985 and has been a member there ever since. He served on the committee in various portfolios, including as chairman. He says he is fortunate to own a 3" refractor bought from Jack Bennett. He experienced total solar eclipses in Zambia in 2001 and in Tshipise in 2002. He particularly enjoys interacting with the public at astronomy events and inventing models which help to explain out-of-this-world concepts to them.

