CURRICULUM VITAE

J. Anton Zensus

Astrophysicist and Director Emeritus, Max Planck Institute for Radio Astronomy

CURRENT ACTIVITIES

- Astrophysical research: Principal Investigator, ERC Advanced Grant M2FINDERS — probing the black hole paradigm and the jet base of supermassive black holes with next-generation VLBI imaging
- Advisory engagements: select roles with research institutions, international scientific collaborations, and funding organisations in Europe and North America
- Mentoring: active mentor to emerging and established leaders in science and research governance
- Ongoing scientific affiliation: Adjunct Scientist, National Radio Astronomy Observatory, USA

EXECUTIVE SUMMARY

Professor J. Anton Zensus is a world-leading astrophysicist whose pioneering scientific contributions and strategic leadership have fundamentally shaped modern radio astronomy. Over four decades, he has been at the forefront of research on active galactic nuclei (AGN) and relativistic jets, producing key discoveries that advanced our understanding of supermassive black holes, jet formation, and extreme physical conditions in the universe. His group has long been recognised as one of the world's foremost centres for AGN astrophysics, combining innovative observational techniques with major scientific breakthroughs.

In parallel with his scientific achievements, Professor Zensus transformed the technical and organisational foundations of ultra-high-resolution astronomy. His department at MPIfR defined the modern field of millimetre and space Very Long Baseline Interferometry (VLBI), achieving critical milestones such as the first European and transatlantic 1.3 mm VLBI detections, the creation of the Global mm-VLBI Array (GMVA), and essential contributions to the integration of ALMA into VLBI. These developments were pivotal in enabling horizon-scale imaging of black holes.

As Founding Chair of the Event Horizon Telescope (EHT) Board, he united a previously fragmented and highly competitive international community into a coherent and effective global collaboration. His scientific vision, diplomatic skill, and ability to build consensus across institutions worldwide were essential in delivering the first image of a black hole in M87* (2019) and the first image of Sagittarius A*, the Milky Way's central black hole (2022) — two landmark moments in the history of astrophysics.

Beyond the EHT, Professor Zensus has been a central architect of European and global radio astronomy — through his decade-long leadership of Europe's SKA preparations, his initiation of the first international LOFAR station at Effelsberg, and his role in founding the Joint Institute for VLBI in Europe (now JIV-ERIC).

Over four decades, the work of Anton Zensus has pushed the boundaries of what radio astronomy can observe. The first images of black holes are the most visible result of his contributions, yet they only mark a beginning. The infrastructure, international collaborations, and new science he helped enable will outlast them.

KEY SCIENTIFIC ACHIEVEMENTS

Pioneering Global Ultra-High-Resolution Astronomy

- Advanced VLBI into a global, Earth-sized instrument through leadership in mm-VLBI, space VLBI, and international coordination

- Achieved the first 1.3 mm VLBI fringes in Europe and across the Atlantic, enabling horizon-scale imaging

Founding Architect of the Event Horizon Telescope (EHT)

- Unified the global mm-VLBI community into a coherent and effective collaboration, navigating a decade of scientific and institutional complexity
- Delivered two historic results: the first image of a black hole in M87* (2019) and the first image of Sagittarius A*, the Milky Way's central black hole (2022)
- Led MPIfR's foundational technical and scientific contributions to both achievements

Seminal Research on Relativistic Jets and Black Hole Physics

- Co-discovered double-helical jet structure in 3C 273, supporting magnetohydrodynamic jet models
- Influential studies of brightness temperatures exceeding theoretical limits
- Led one of the world's foremost AGN research groups, producing major discoveries on jet dynamics and AGN structure

Strategic Leadership in Space VLBI

- Key scientific and organisational roles in VSOP and RadioAstron, enabling unprecedented baselines and high-resolution findings

Architect of International Radio Astronomy Infrastructure

- Founder of the GMVA; key contributions to the ALMA Phasing Project
- Initiated the first international LOFAR station at Effelsberg, creating the path toward the International LOFAR Telescope
- Helped found the Joint Institute for VLBI in Europe (now JIV-ERIC)
- Established European coordination via RadioNet and contributed to European VLBI, LOFAR, SKA, and ngVLA development

LEADERSHIP & GOVERNANCE (SELECTED)

Executive and Institutional Leadership

- Director, Max Planck Institute for Radio Astronomy (1997–2026); now Emeritus
- Executive Director, MPIfR (multiple terms)
- Founding Chair, Event Horizon Telescope Board
- Coordinator, European RadioNet Alliance

Strategic Roles within the Max Planck Society

- Advisor to the MPS President on Transatlantic Cooperation
- Chair, MPS Roundtable North America
- Member: MPS China Council, MPS Roundtable Europe, Open Science Roundtable, MP Academy Scientific Advisory Council

European & International Scientific Governance

- Chair of the European SKA Council for a decade; member of SKA SSEC and ISSC
- Chair, Italian INAF Institute for Astronomy
- Member, Scientific Advisory Board of the Korean KASI Institute
- Member, Senior Review of Manchester University Physics
- Member, UK SRC Advisory Committee on Astronomy

- Member: ngVLA Science Advisory Group; AUI Astronomy Committee; KoWi Council; University of Bonn Scientific Advisory Council
- Member: Shanghai Astronomical Observatory International Committee

Coordination of Radio Astronomy Networks & Missions

- Chair, EVN Board of Directors (2013–2015)
- Council Member, JIV-ERIC
- Member, RadioAstron & VSOP International Science Councils
- Coordinator: RadioNet/FP7, RadioNet/Horizon 2020, ORP

HONORS & DISTINCTIONS (SELECTED)

Major Individual Awards

- Karl Schwarzschild Medal (2024)
- Tycho Brahe Medal (2023)
- ERC Advanced Grant (2021)
- Max Planck Research Prize for International Cooperation (1999)
- Alexander von Humboldt Research Prize (1994)

Awards Associated with EHT

- Frontiers of Science Award (2025)
- RAS Group Achievement Award (2021)
- AAS Bruno Rossi Prize (2020)
- Einstein Medal (2019)
- Breakthrough Prize in Fundamental Physics (2019)
- NSF Diamond Award (2019)

Additional Honors

- CAS President's International Distinguished Scientist Fellowship (2025)
- KASI Distinguished Scholar (2015)
- Golden Medal, Institute of Applied Astronomy (2013)
- RadioAstron Bronze Medal (2012)

CAREER HISTORY

1958	Born in Bremerhaven, Germany
1976–1984	Studies in Physics & Astronomy, Cologne, Münster, Bonn
1982	Diploma, University of Münster
1984	Doctorate, University of Münster
1985–1988	Postdoctoral Fellow, Caltech
1988–1991	Jansky Fellow, NRAO
1991–1997	Staff Scientist, NRAO (Tenured 1996)
1995–1997	Research Professor, University of Virginia
1997–2026	Director, MPIfR
2001–	Adjunct Scientist, NRAO
2005–	Honorary Professor, University of Cologne
2026	Emeritus Director and Scientific Member, MPIfR

TEACHING, TRAINING & MENTORING

- Founder & Speaker, International Max Planck Research School for Astronomy and Astrophysics (IMPRS)
- Mentor: Elisabeth-Schiemann-Kolleg
- Certified in systemic coaching and supervision (2021, 2023)
- Teaching at University of Cologne

SERVICE TO SCIENCE & THE INTERNATIONAL COMMUNITY

- Leadership roles across Europe, Asia, and the Americas
- Advisor to scientific agencies and research ministries
- Builder of multinational collaborations and advanced research schools
- Shaper of next-generation facilities including EVN, SKA, LOFAR, ngVLA

PUBLICATIONS

Full publication list (NASA ADS): https://tinyurl.com/4777yuua