Éloge Reinhard Genzel

Cérémonie Docteur Honoris Causa

Guy Perrin

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Your Excellency the Ambassador of Germany in France, Mrs the Director of Science of the Royal Academy of Belgium, Mr the NASA Attaché to the US embassy in Paris, ladies and gentlemen, dear colleagues.

It is my great pleasure and honor to praise the career of Professor Genzel just before President Catala makes him Doctor Honoris Causa of Paris Observatory. Reinhard Genzel is one example, but not the least, of the firm ties between France and Germany. The kind of ties that bind groups and countries together.

Professor Genzel is one of the four directors of the Max-Planck-Institut für Extraterrestrische physik (a.k.a. MPE) in Garching near Munich. He is currently the managing director of the institute.

Reinhard Genzel is a Scientific Member of the Max Planck Society, Full Professor in the Physics Department of the University of California in Berkeley, Honorary Professor at the Ludwig Maximilian University, in Munich. As far as research is concerned, he is the head of the infrared and sub-millimiter group at MPE.

Reinhard Genzel did his PhD at the Max-Planck-Institut für Radioastronomie in Bonn in 1978. He then became a Harvard post-doc fellow and just after, in 1981, professor of physics at the University of California in Berkeley and, not much later in 1986, director of MPE.

Reinhard Genzel has built one of the world-leading groups on galactic and extra-galactic physics.

The ties of his group with Paris Observatory and France are very strong.

A first example is the fruitful collaboration with Pierre Léna and his group on infrared astronomy at the time of the Caravelle airborne observatory. This led to a common project of a European facility for the IR and the sub-millimeter flying an Airbus. After the unfortunate withdrawal of CNES and CNRS it later became SOFIA with NASA.

Both Pierre Léna and Reinhard Genzel have been very active and convincing advocates of high angular resolution and in particular of interferometry. They were the key players in the 80s/90s to convince their own countries and ESO to make the VLT a powerful interferometer, beyond a conventional big light bucket. A direct consequence was the inclusion of adaptive optics in the program with the worldwide impact that would unfold. The results on the Galactic Center are one of the paramount breakthroughs of the VLT, thanks to adaptive optics.

A second example is the work with Françoise Combes and her group on galaxies with the Plateau de Bure interferometer at IRAM. With three important large-scale programs together to study gas feeding of AGNs, the reservoirs of cold gas and star formation in galaxies at high redshift. The amount of results on the evolution of galaxies on timescales of giga years is impressive.

MPE and OP are strongly pushing together for NOEMA to happen and for IRAM to remain a key asset of European astronomy in the era of ALMA.

The extraordinary results obtained by Reinhard Genzel and his group on the Galactic Center are very well known: the confirmation of the likely black-hole nature of the central source, the detection of infrared flares possibly occurring at the horizon, the study of the characteristics of stars and the exploration of the paradox of youth are examples. But one strong characteristic of Reinhard Genzel is the key belief that progress in astrophysics comes from pioneering instruments, indeed a risky business! He built his group with the idea that observations, modeling and instrumentation should be part of a consistent approach to solve astronomical mysteries. Astronomy in this field would not be as strong without the Genzel group!

I have had the pleasure to serve on the VLTI implementation Committee chaired by Reinhard Genzel. VLTI is a long and difficult project and I am very much impressed by the investment and energy of Reinhard Genzel to make it move forward and to defend the cause. The GRAVITY instrument for VLTI would not have been possible without the Genzel group who is leading the effort. I hope the outcome will be as positive as the spirit of our collaboration and with hopefully key discoveries on the Galactic Center. MPE and Paris Observatory are also pushing together for MICADO on the E-ELT, also led by MPE. The two PIs, Frank Eisenhauer and Ric Davies, perfectly illustrate the fantastic capability of Reinhard Genzel to train and to attract young scientists of very high value.

I will end this too short and limited praise by recalling that Reinhard Genzel has received many prestigious prizes. I have counted a total of 15 but I may have overlooked some. Among others: the Balzan Prize for Infrared Astronomy in 2003, the Shaw prize in 2008, the Crafoord Prize from the Royal Swedish Academy in 2012.

Reinhard Genzel is also a member of many academies, inlcuding the Leopoldina Academy in Germany and others as a foreign member: the United States National Academy of Sciences, the French Académie des Sciences, the Royal Spanish Academy of Sciences and the Royal Society of London.

The decision to grant Reinhard Genzel with the Paris Observatory Honoris Causa Doctorate for his exceptional career and his long history of collaboration with our institution was unanimously taken by the scientific council and, dear Reinhard, I am very happy to be the first one to congratulate you!