

FORS

HOW IT ALL BEGAN



G. RUPPRECHT





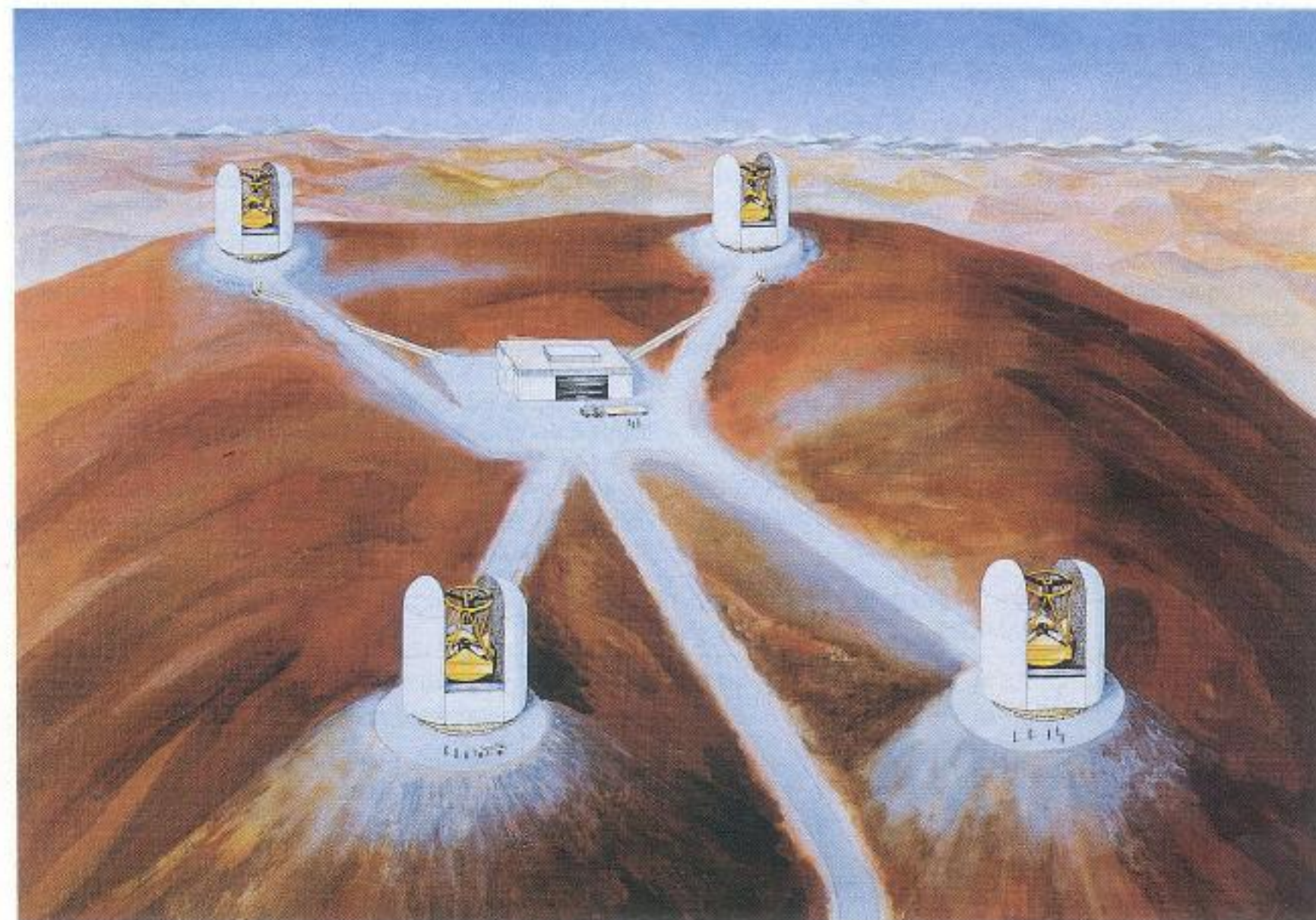
• La Silla
• La Serena
• Santiago

• Munich

No. 34 – December 1983

The Very Large Telescope Project

*D. Enard, Head of the VLT Project Group, and
J.-P. Swings, Chairman of the VLT Astronomy Advisory Committee*



Artist's view of an early ESO VLT concept, representing a array of four 8 metre telescopes, of which two are shown to be linked for interferometric capabilities. It now seems preferable to do interferometry by adding to the large dishes a few smaller size (2–3 metre) telescopes that would be movable. (Drawing by J.-M. Leclercqz.)



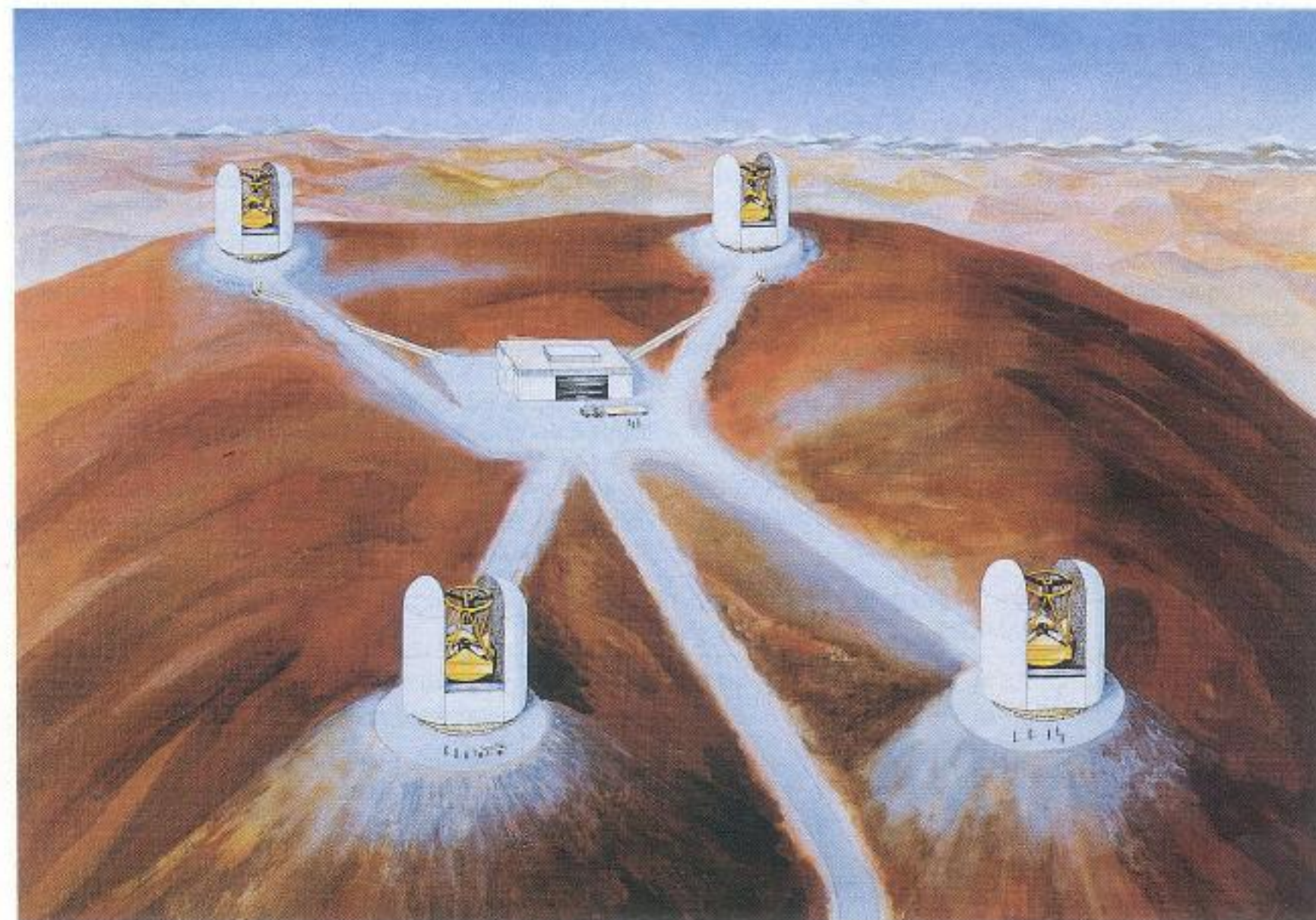
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VLT Instrumentation Plan

Working Groups:

- ★ Imaging/Lo-res spec
- ★ Hi-res spec
- ★ Interferometry



EUROPEAN SOUTHERN OBSERVATORY

VLT REPORT No. 52

REPORT TO THE ESO VLT PROJECT
OF THE WORKING GROUP ON
IMAGING AND LOW RESOLUTION SPECTROSCOPY

July 1986



Very Large Telescope Project

Top Level Requirements



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Very Large Telescope Project

Top Level Requirements

4. The WG is unanimous that the VLT should support a relatively small suite of well-engineered and thoroughly understood instruments, which can be scheduled flexibly so as to make best advantage of changing atmospheric conditions.
5. The WG recommends that one of these instruments should be a set of general purpose focal reducers at one Nasmyth focus of each of the array elements. These would provide for imaging and multi-object spectroscopy at resolutions from 3 to at least 3000. For multi-object spectroscopy of galaxies at cosmological distances, an instrumental field of view of at least 25 arcmin is required (i.e. exclusive of the field needs of the active optics/auto-guider detectors). Close attention must be paid to minimizing scattered light in the optical design, and if at all possible low noise, high efficiency, very large format detectors should be incorporated.



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EUROPEAN SOUTHERN OBSERVATORY

Organisation Européenne pour des Recherches Astronomiques dans l'Hémisphère Austral
 Europäische Organisation für astronomische Forschung in der südlichen Hemisphäre

ESO - EUROPEAN SOUTHERN OBSERVATORY
 Karl-Schwarzschild-Straße 2 · D-8046 Garching bei München

PURCHASE REQUEST NO.: INS/91/7834 UID: EZU
 TO: CONTRACTS & PROCUREMENT (ORIGINAL TO CP)

Suggested/preferred supplier(s): Date: 10.12.91
 11491 Requested by: SDO
 VLT Instrument Consortium Follow-up by GL/User: SDO
 Landessternwarte Heidelberg PR approved by DL: MTA
 Prof. I. Appenzeller Date and Signature:
 Königstuhl Budget: *
 Cost code: *
 D-6900 Heidelberg 1 Estimated DM amount: 4.500.000,00
 Tel.: (06221) 5090 Keyword Descript.: FOCAL REDUCERS
 Activity code: 824
 Country of Origin: D
 Inventory (Y/N): Y
 Single Source (Y/N): N
 * Breakdown in DM: FIN. Approval + Date:

431101E/140 3.000.000,00 431102E/140 1.040.000,00 431101X/140 460.000,00

Please attach necessary documentation relating to the requisition. Do not make any
 commitment with the supplier without prior consultation of Contracts & Procurement.

Currency: DEM

Item	Article/Description	Unit	Quant.	Unit Price	Reb.%	Total Price
1	Design, construction and installation at the VLT Observatory in Chile of two UV-Visual Focal Reducer/Low Dispersion Spectrograph	pc	1	4.500.000,00		4.500.000,00
Total Value						4.500.000,00

Delivery Date required: 1.10.98

Delivery Address: E S O
 Karl-Schwarzschild-Straße 2
 D 8046 Garching b. München

Internal Delivery Point: PARANAL

Transport by: by airfreight in collective container

	Requester	Group Leader or User	Division Leader or Approver	Administration Finance
Name	D'Odorico	D'Odorico	Tarengi	
Date		10.12.91		
Signature		<i>[Signature]</i>		



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Specifications



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- ★ Imaging
 - * SR broadband filters
 - * HR interference filters
- ★ Spectroscopy grisms
 - * LSS
 - * MOS (+MXU in FORS2)
- ★ Polarimetry
 - * imaging
 - * spectropol
 - * linear
 - * circular
- ★ high image quality
- ★ broadband high efficiency
- ★ minimum image motion

Project Reviews:

PDR 1992

FDR 1994

(PAE1 1998)

(PAE2 1999)



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PDR 1992

FDR 1994

(PAE1 1998)

(PAE2 1999)



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PDR 1992

FDR 1994

(PAE1 1998)

(PAE2 1999)

“Gruppenbild mit Dame”

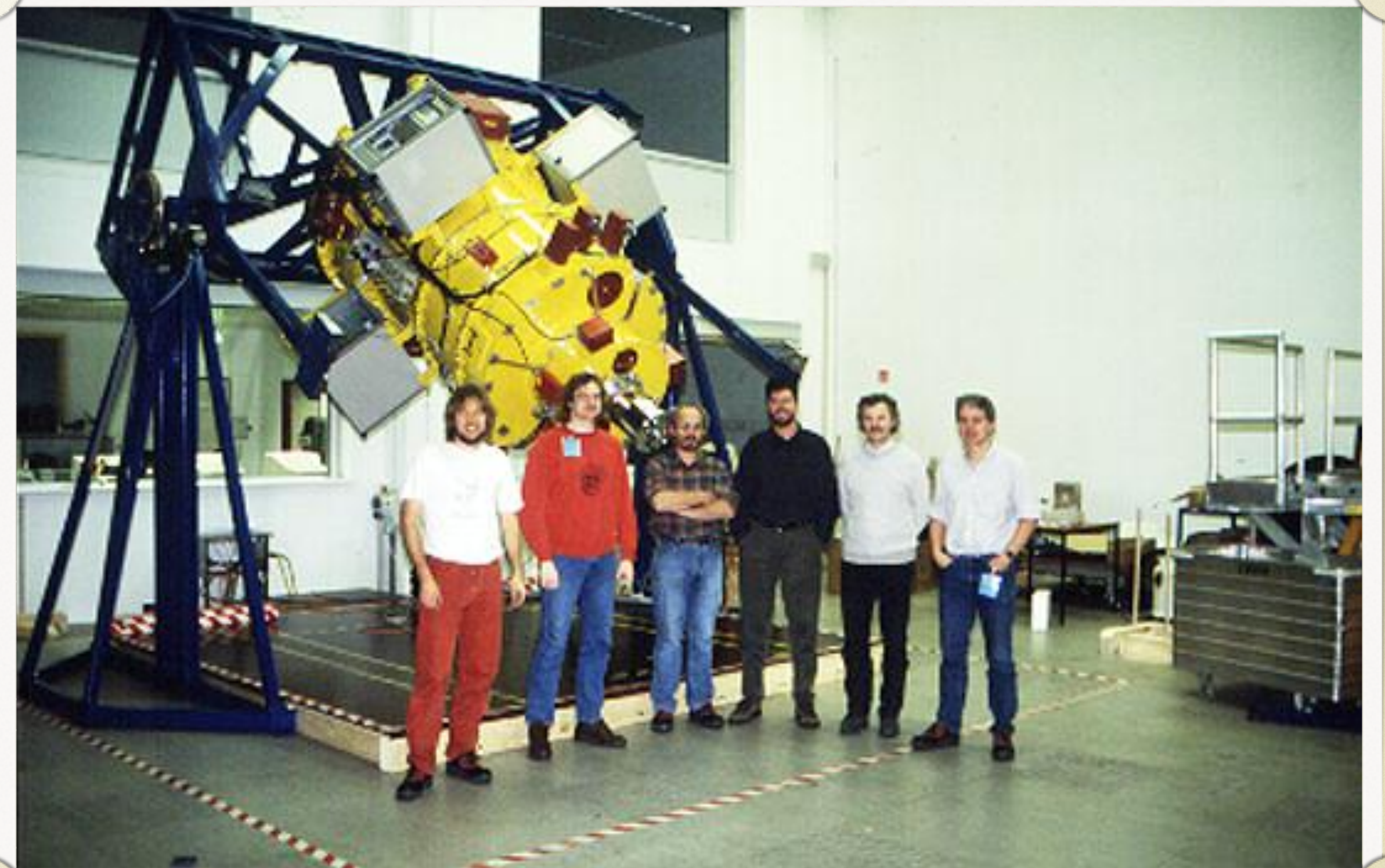
The first major pieces of hardware arrive in Göttingen

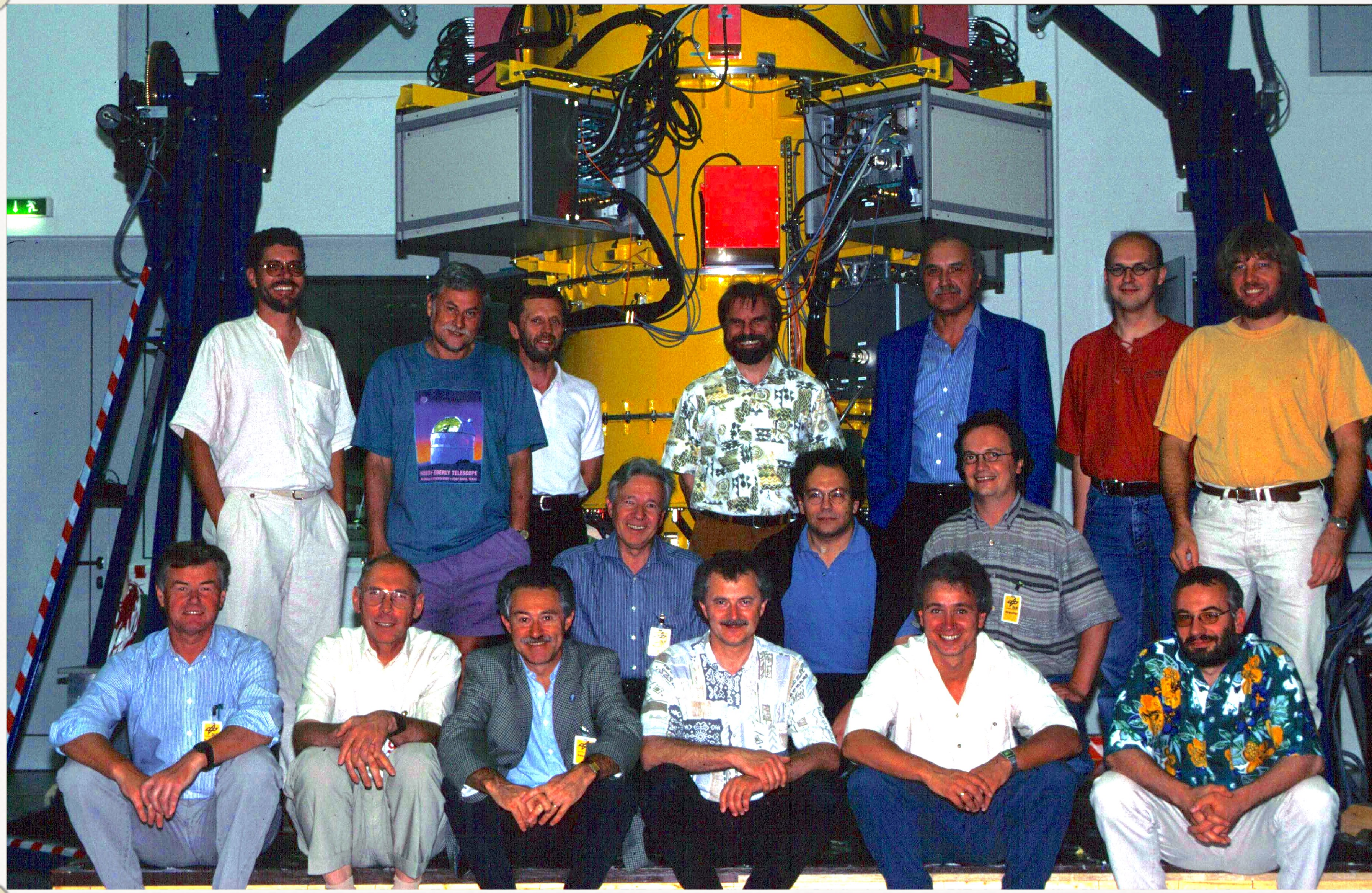


AIT at DLR Oberpfaffenhofen



AIT at DLR Oberpfaffenhofen





*FORS1
PAE
June 30,
1998
DLR*

The way to Paranal



The way to Paranal



Preparing for
re-assembly
in ATH

Preparing for re-assembly in ATH



Preparing for re-assembly in ATH



Re-assembly in ATH



On the way to the telescope



On the way to the telescope

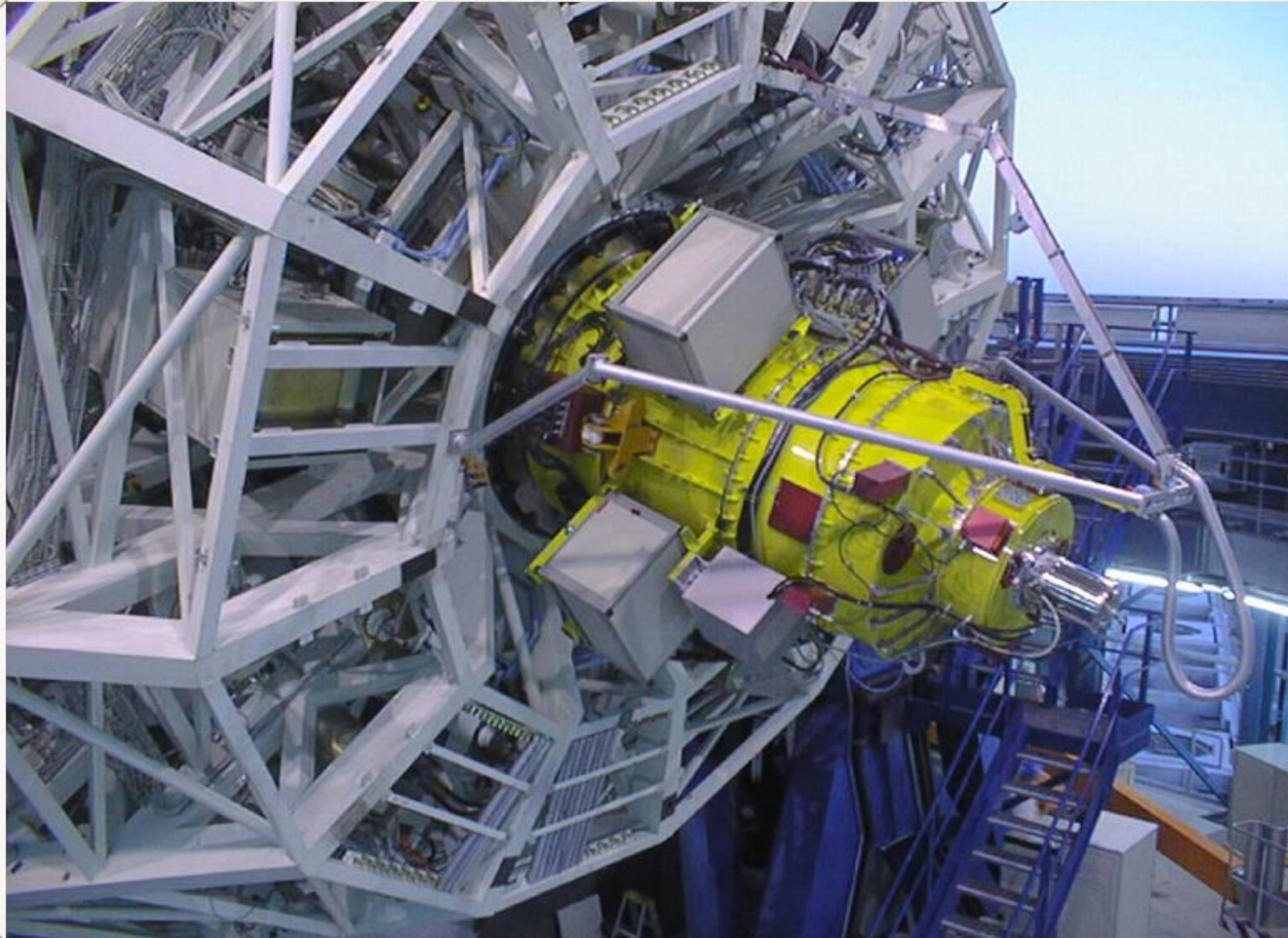




A
strong
team!



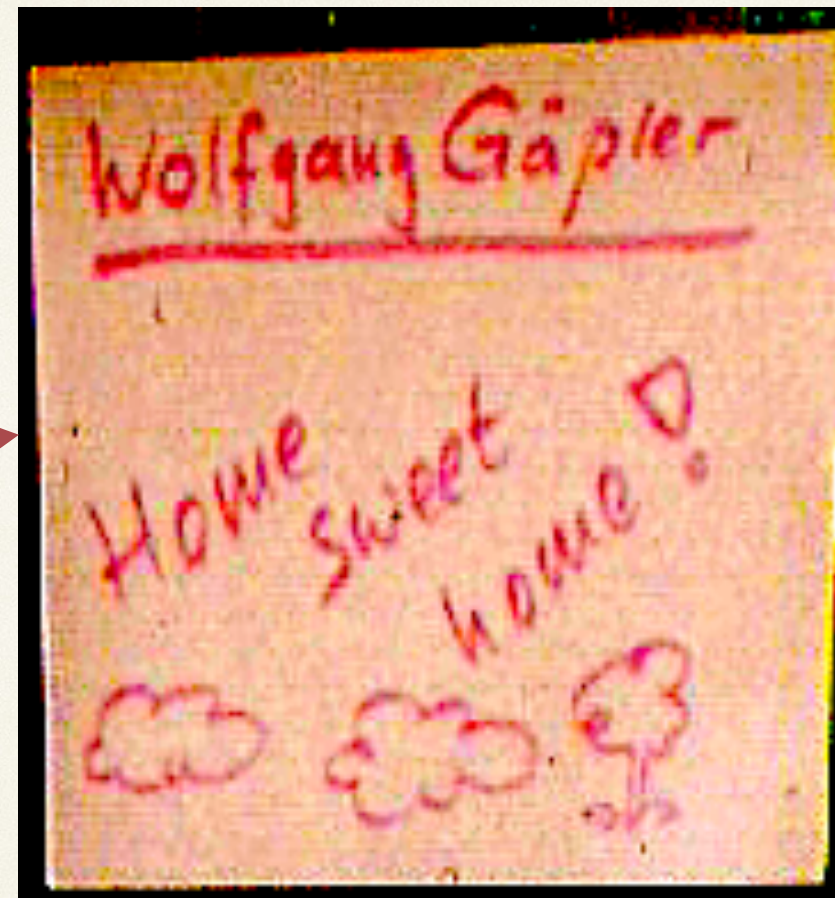
A
strong
team!



Sep 11,
1998

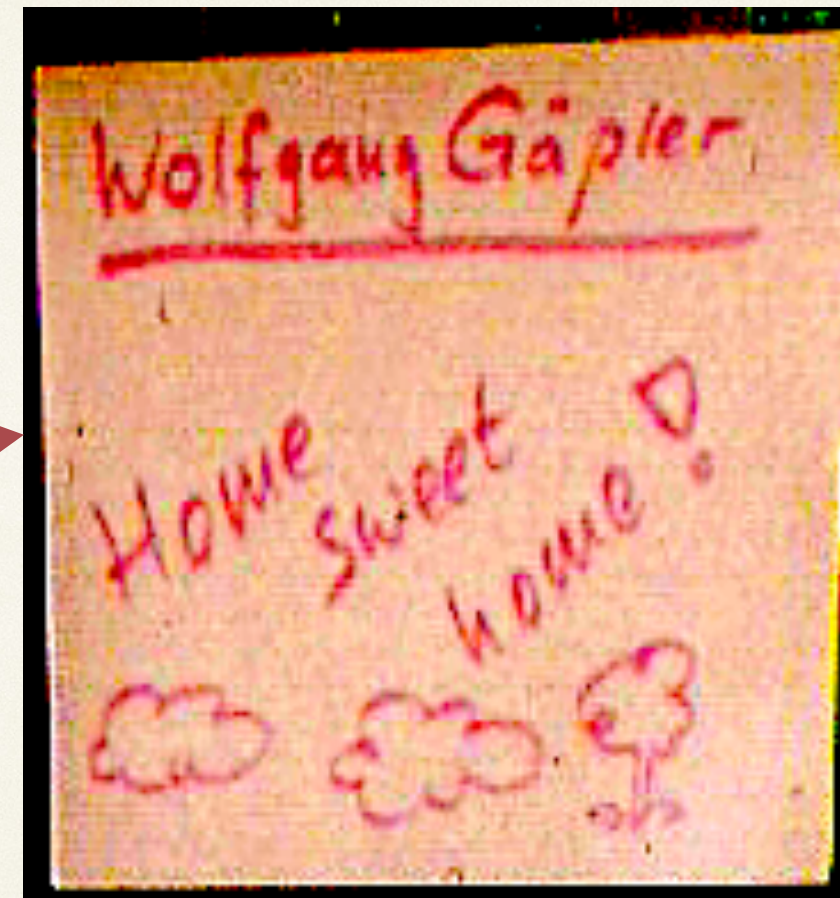
Hard work*



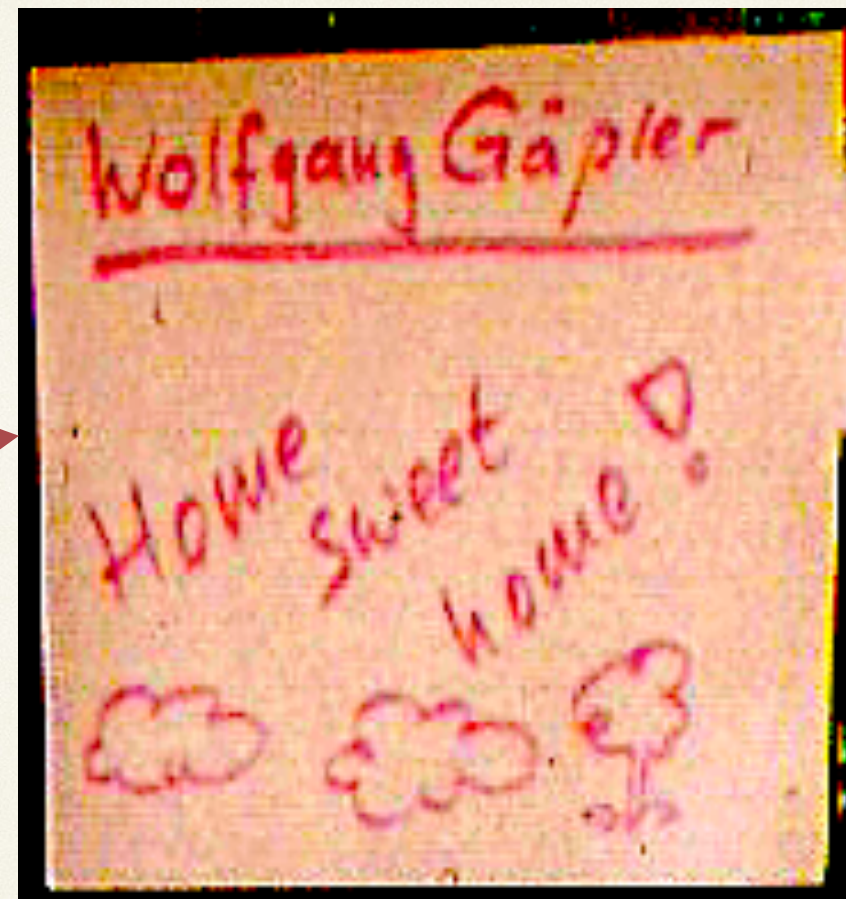


Hard work*

Hard work*



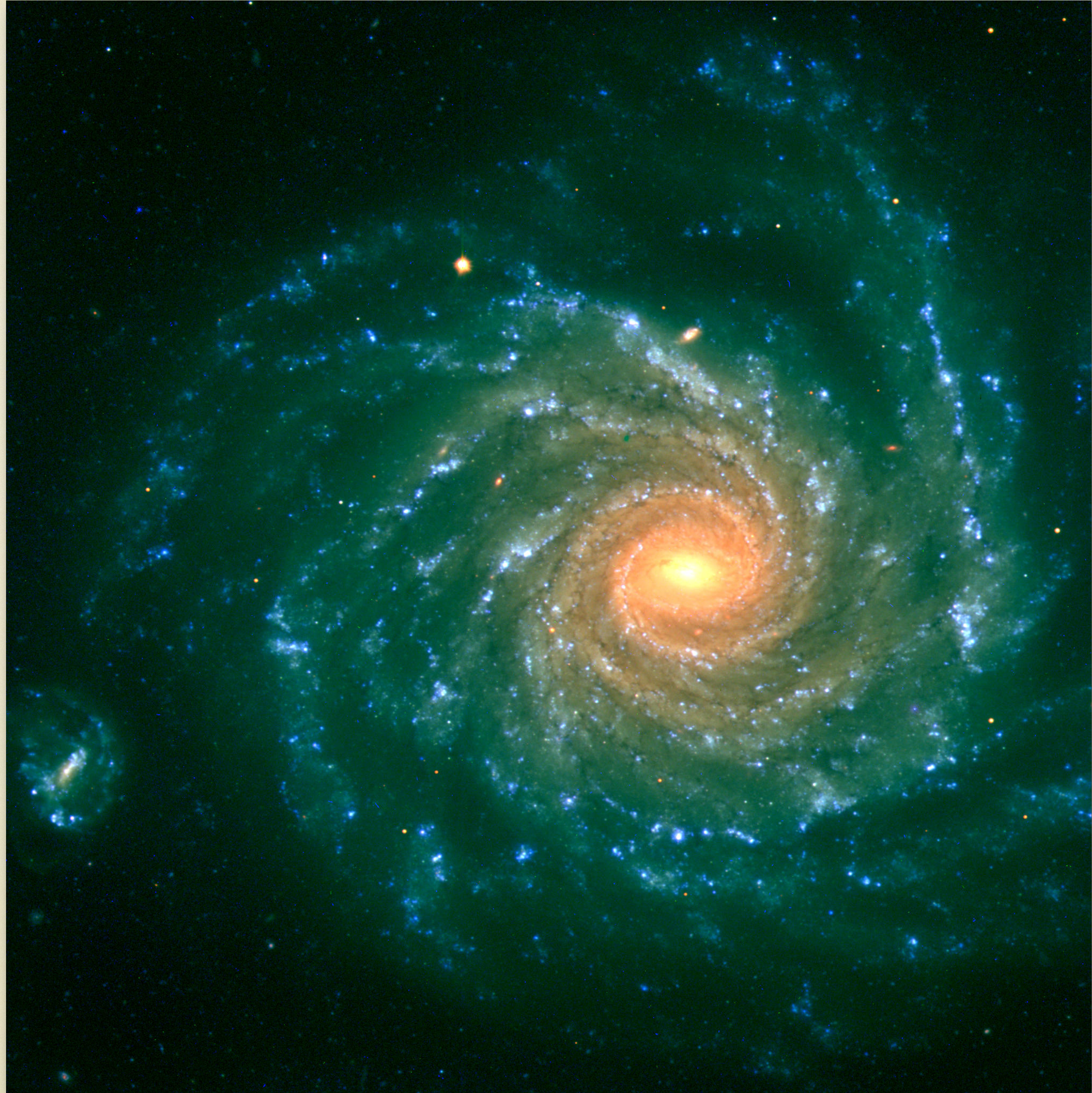
* and 2 water incidents

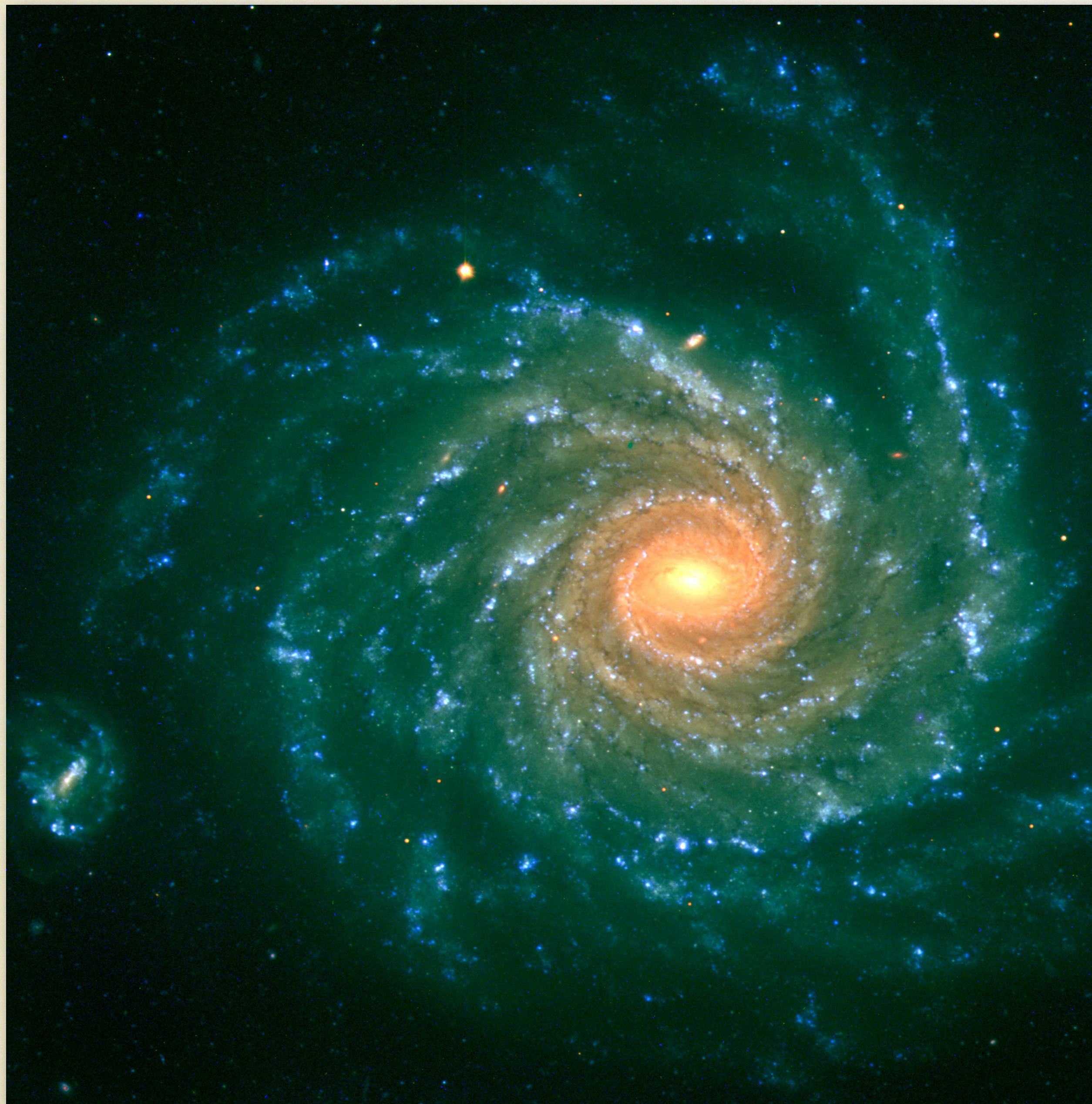


Hard work*
crowned by
First Light
Sep 15, 1998



* and 2 water incidents





**VLT Instrument
Consortium**

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Hermann Bönhardt

Frank Degenhardt

Ulrich Dünsing

Klaus Fricke

Walter Fürtig

Wolfgang Gässler

Reinhold Häfner

Rainer Harke

Claus Hartlieb

Achim Hess

Wolfgang Hummel

Swen Kieseewetter

Walter König

Rolf Kudritzki

Karl-Heinz Mantel

Wolfgang Meisl

Franz Mittermaier

Sabine Möhler

Bernard Muschelok

Harald Nicklas

Roland Östreicher

Harald Schink

Ludwig Schöffner

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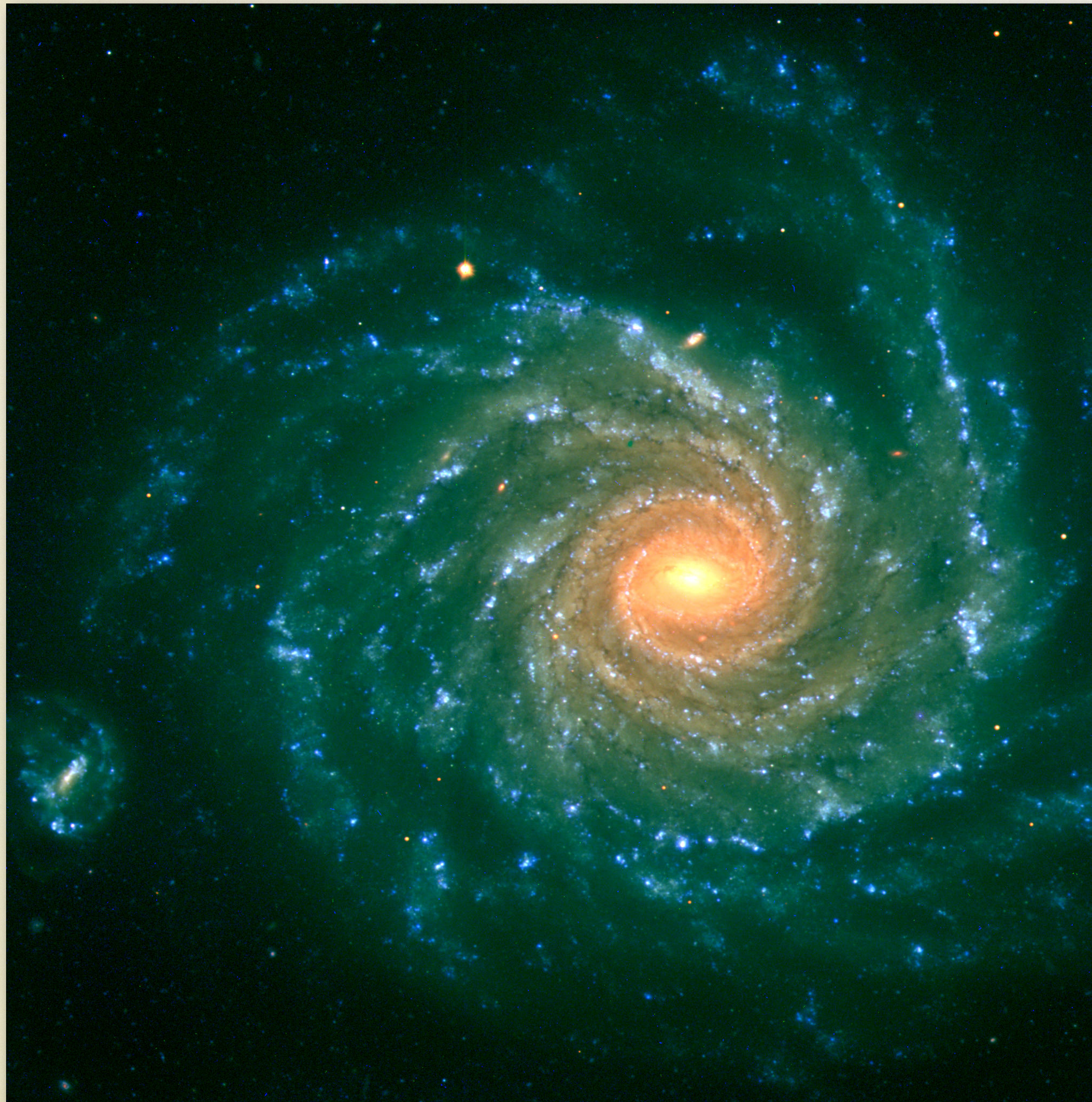
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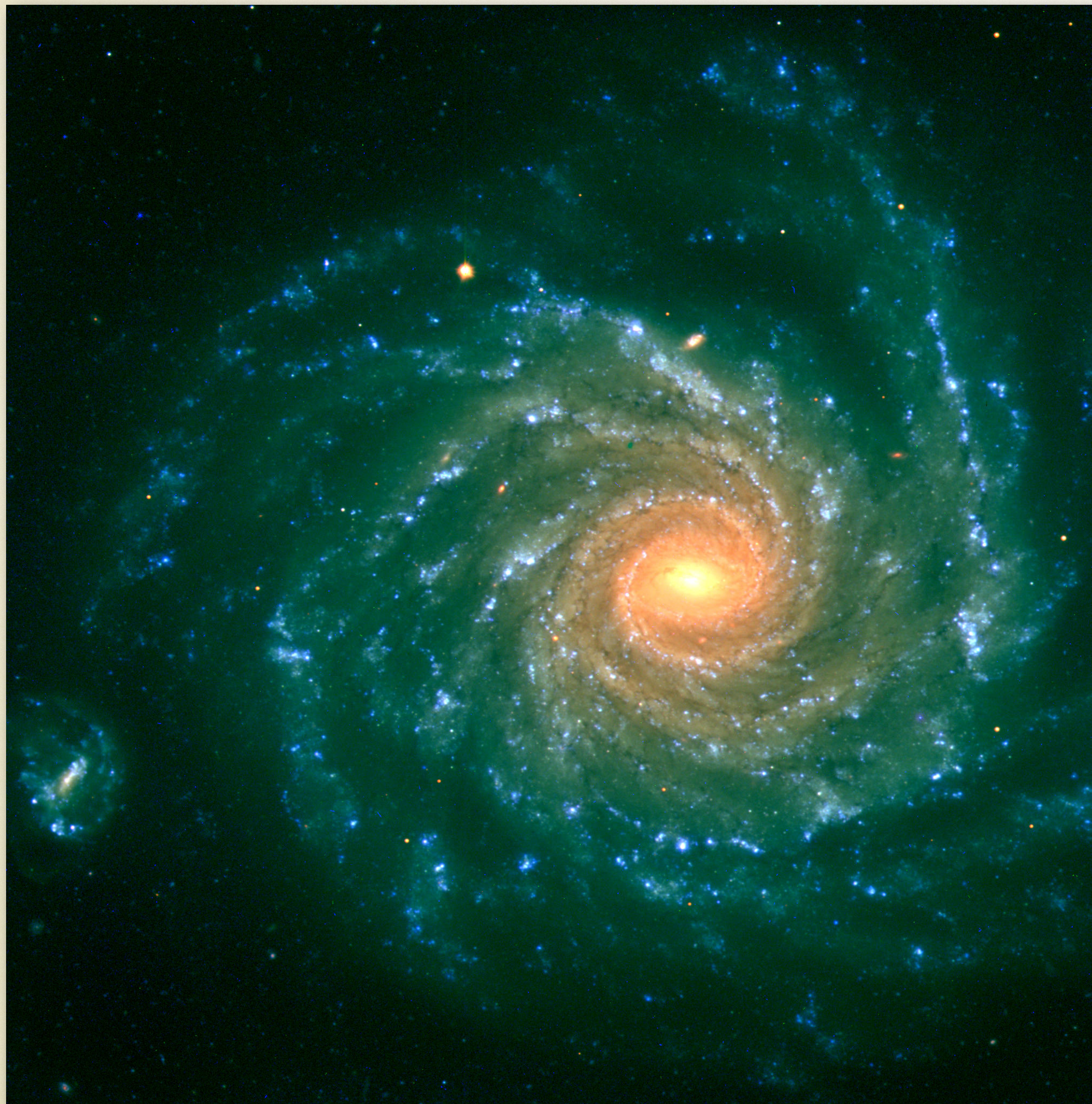


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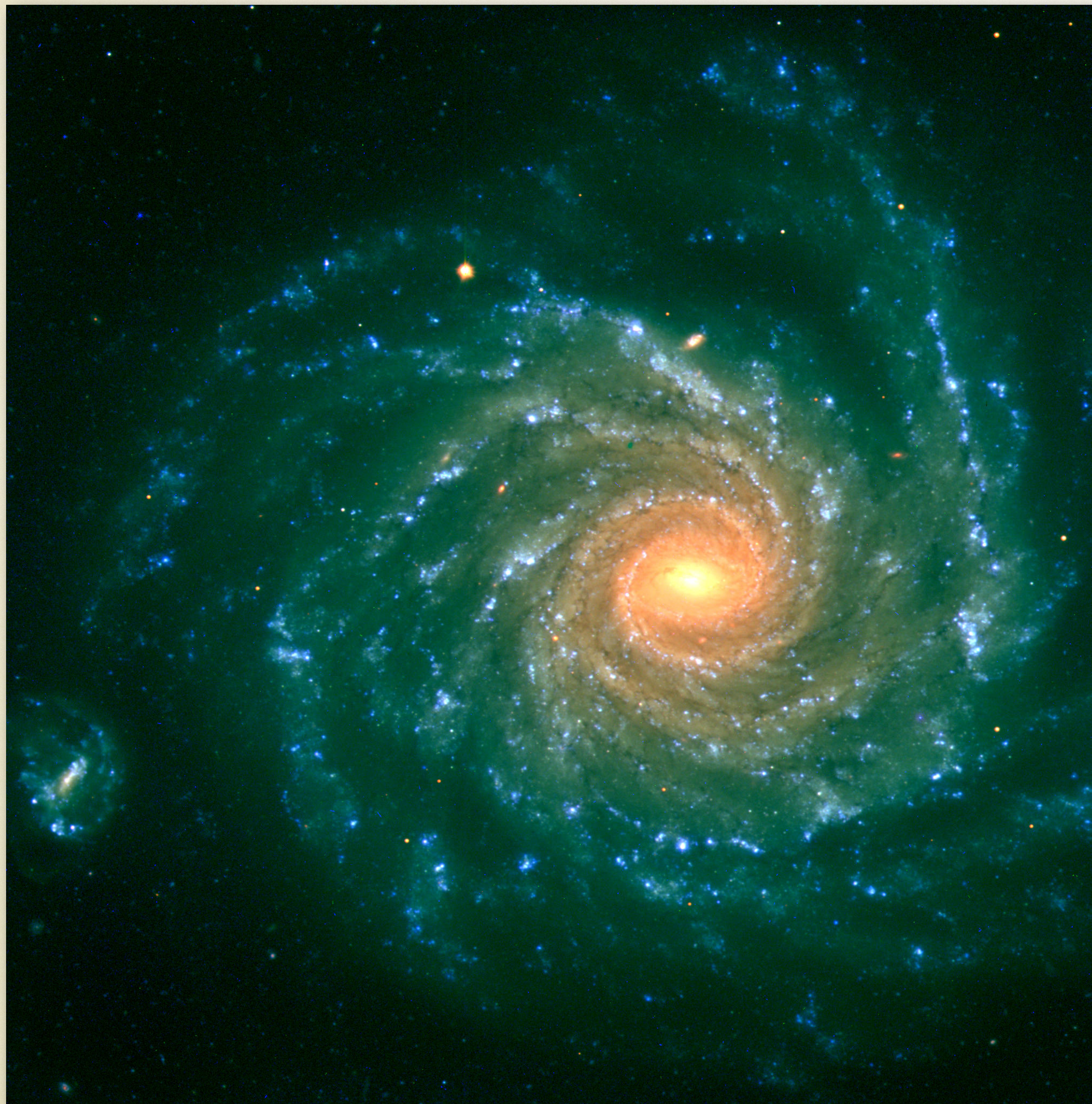
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Norma Hurtado
Carlo Izzo +
Emanuel Jehin
Julio Navarrete
Kieran O'Brien
Emanuela Pompei
Miguel Riquelme
Thomas Szeifert
var IOT members



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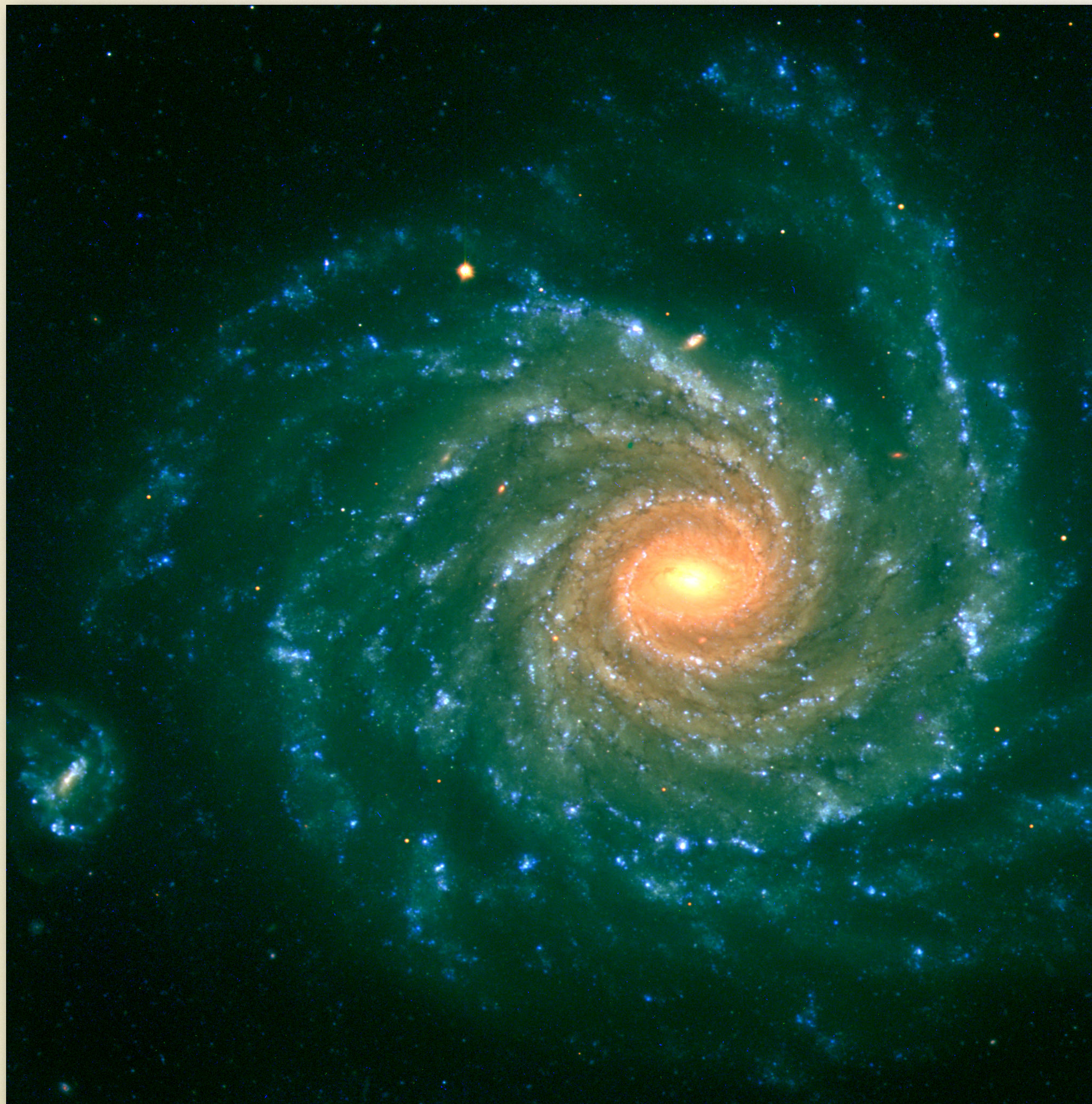
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THANK YOU!



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THANK YOU!
*May the FORS
Be With You!
Always...*