

# European strategy for astroparticle physics

**Amsterdam**  
**20 - 21 September 2007**

Felix Meritis, at Keizersgracht 324, the Netherlands



## DEFINING PRIORITIES FOR ASTROPARTICLE PHYSICS

- Second of 3 workshops conducted by the ERA-NET ASPERA and ApPEC to define the strategy for astroparticle physics in Europe.
- Thematic priorities will be compared to the funding possibilities in Europe.
- The current astroparticle physics roadmap will be compared to roadmaps in nearby fields (astrophysics and particle physics) and in other regions of the world (US, Japan and China).
- Astroparticle Physics and Cosmology will be reviewed by Nobel laureates J. Cronin and G. Smoot

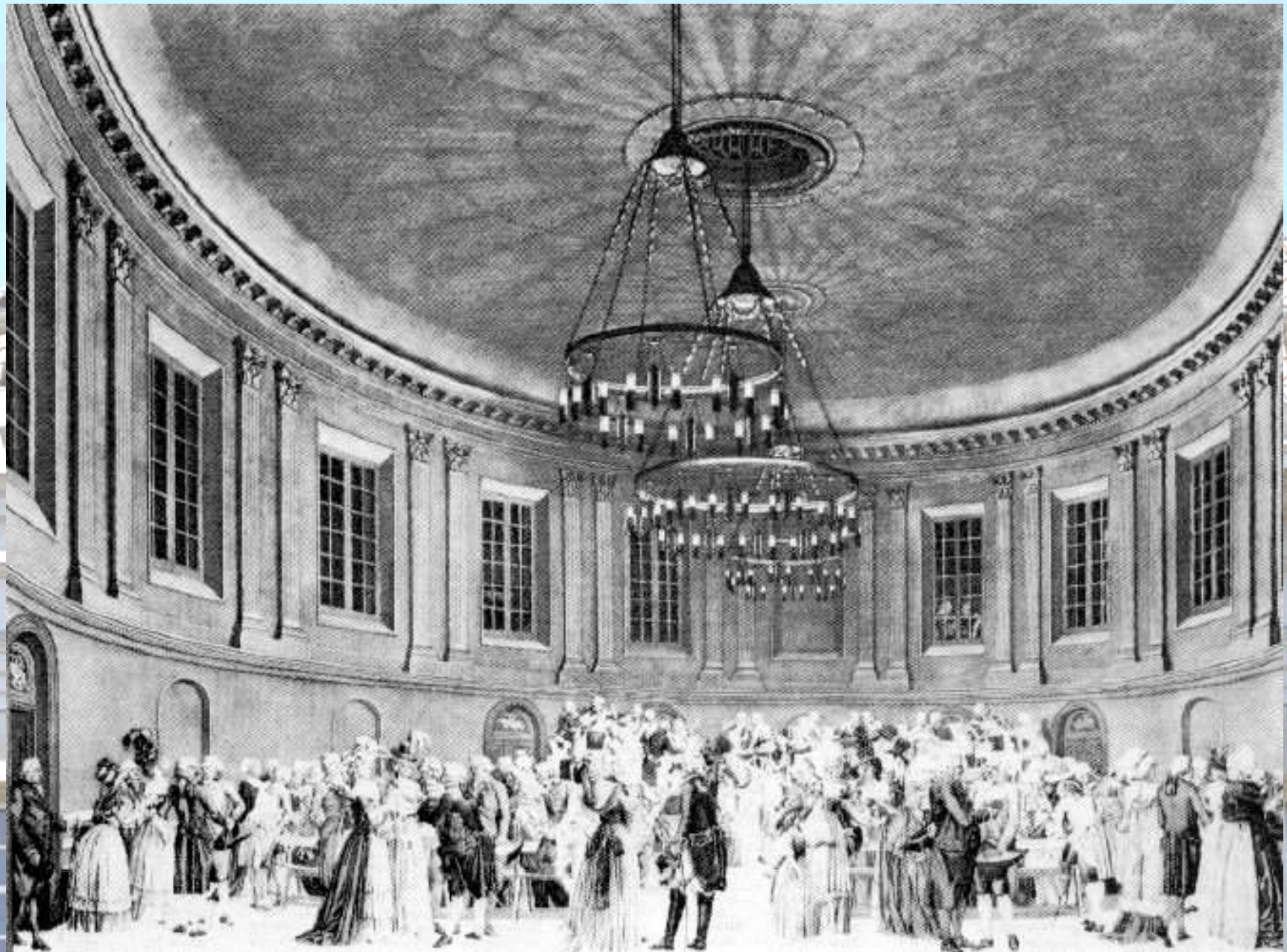
High Energy Gamma Rays  
Neutrino Mass  
High Energy Cosmic Rays  
High Energy Cosmic Neutrinos  
Dark Matter direct detection  
Gravitational Waves  
Low Energy Neutrinos & Proton decay

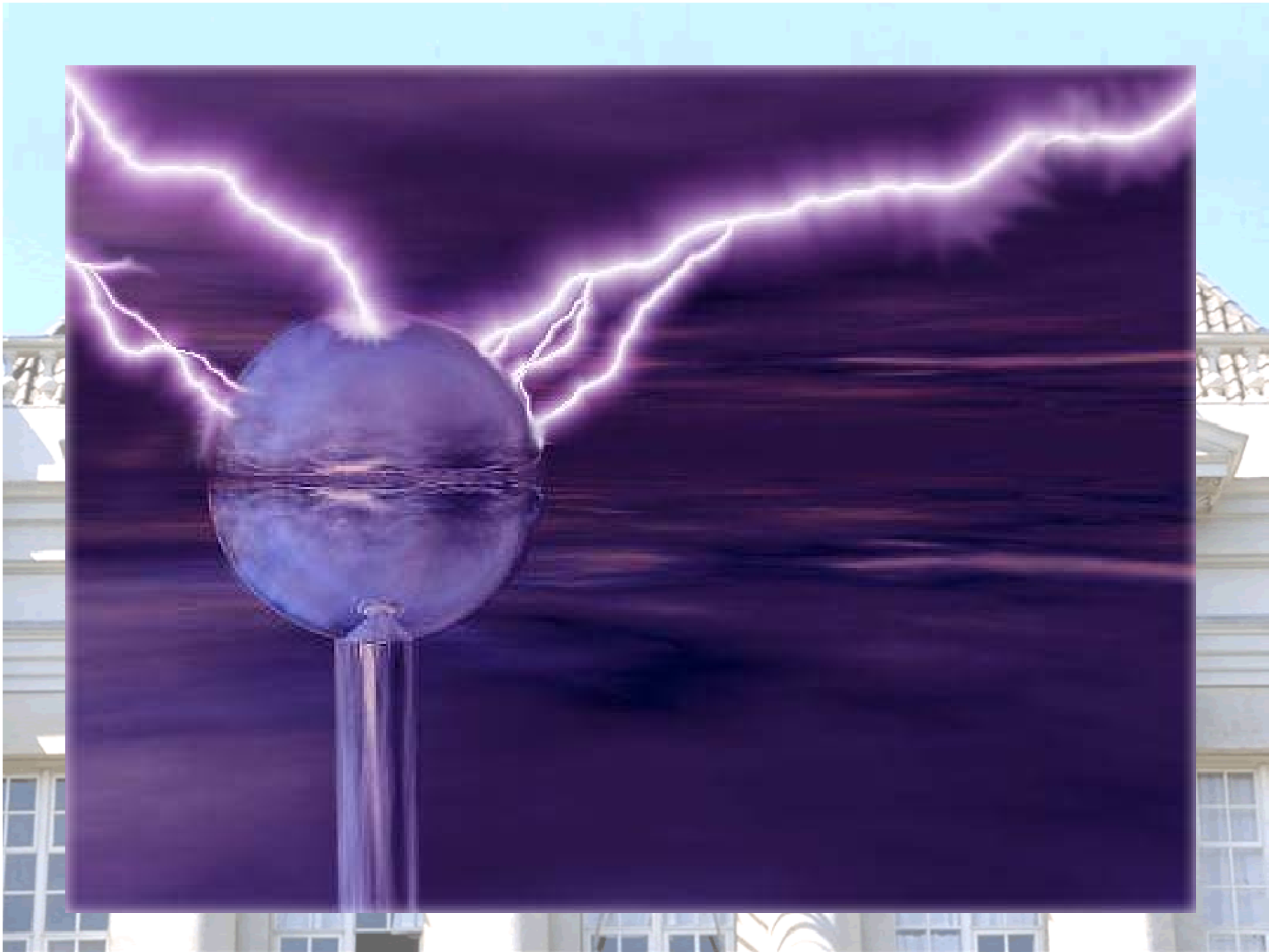
# ASPERA



Organised by ASPERA / Nikhef / FOM, Amsterdam, The Netherlands  
INFO at [www.aspera-eu.org](http://www.aspera-eu.org) / [roadmapmeeting@nikhef.nl](mailto:roadmapmeeting@nikhef.nl)

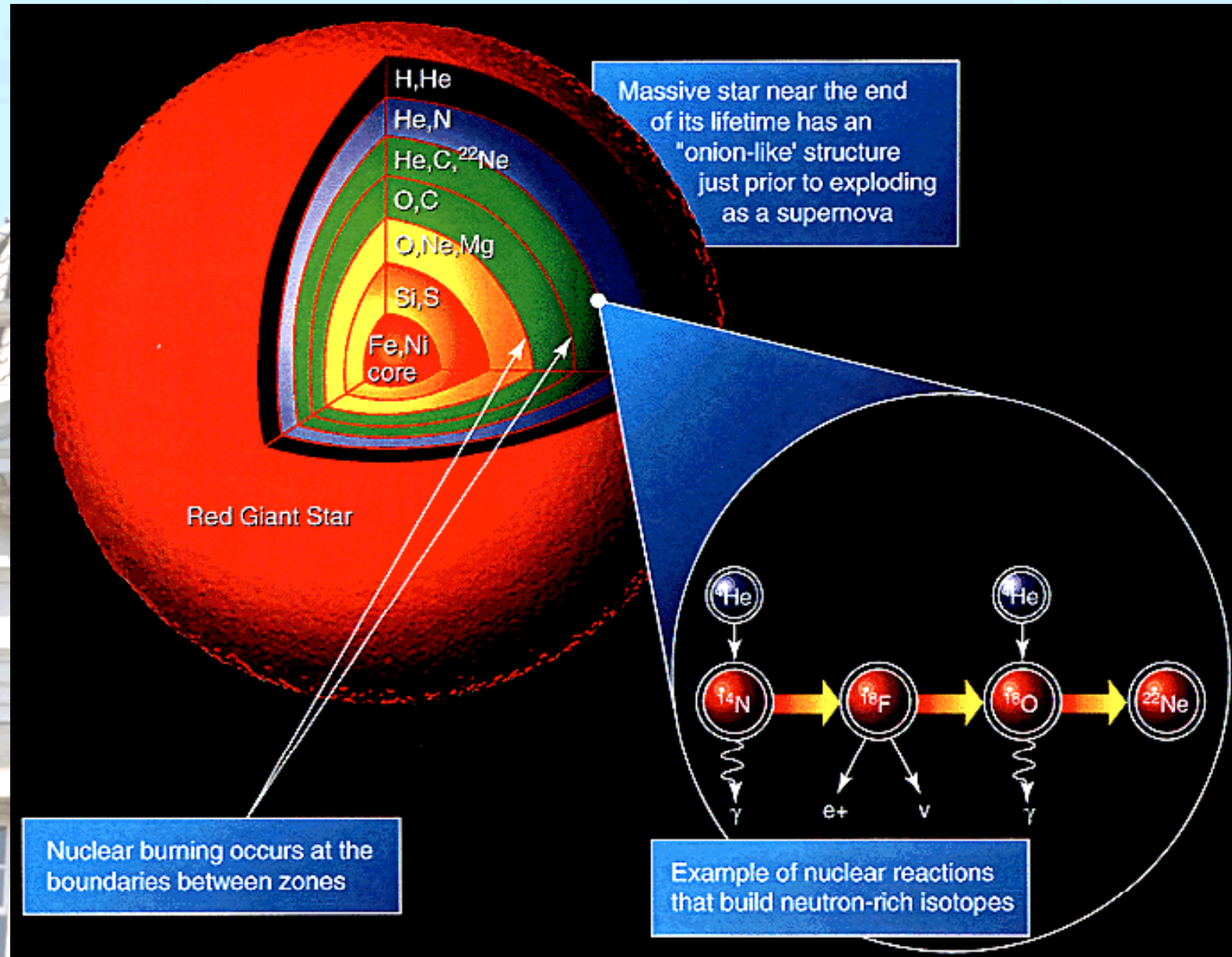




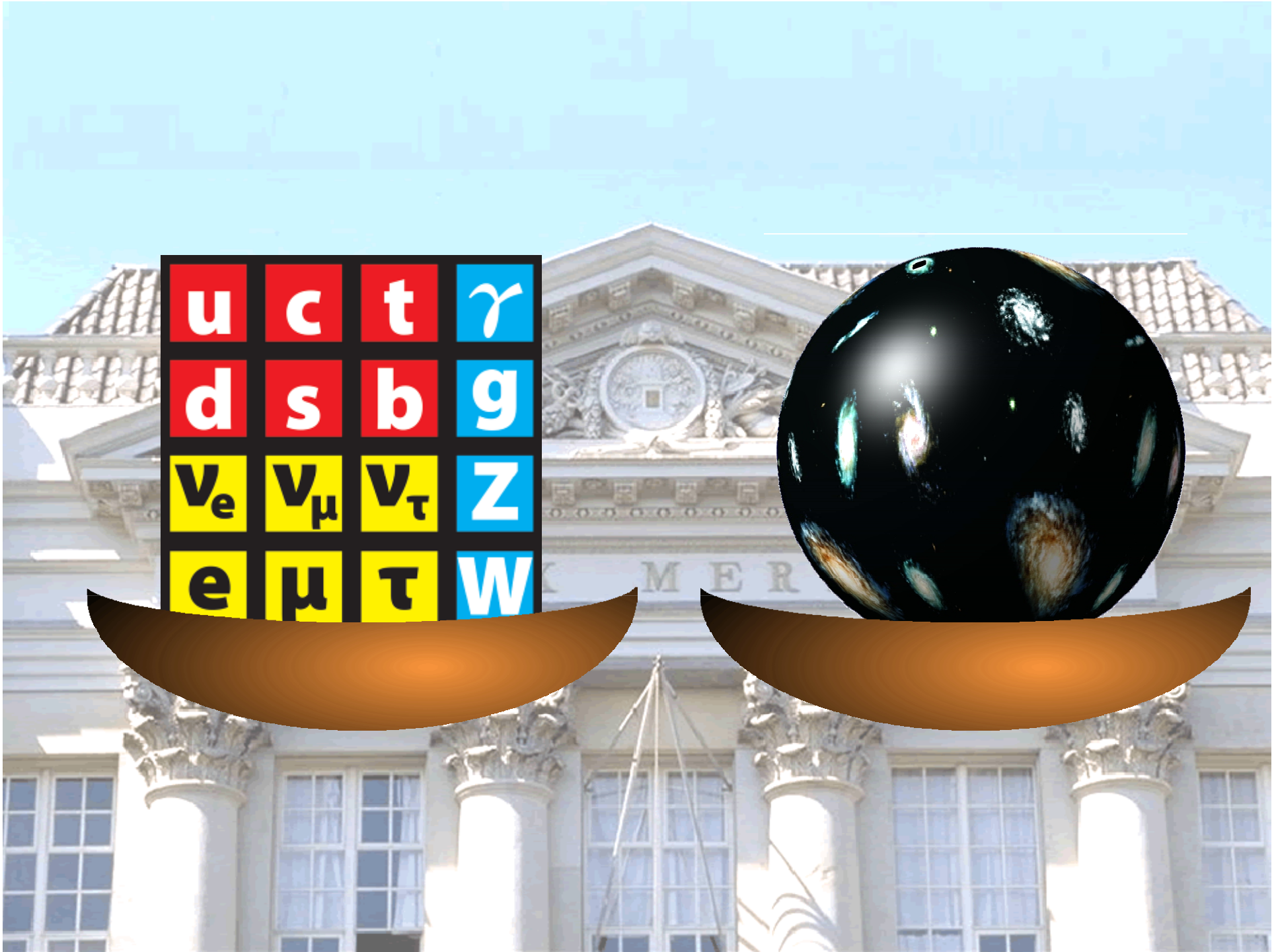




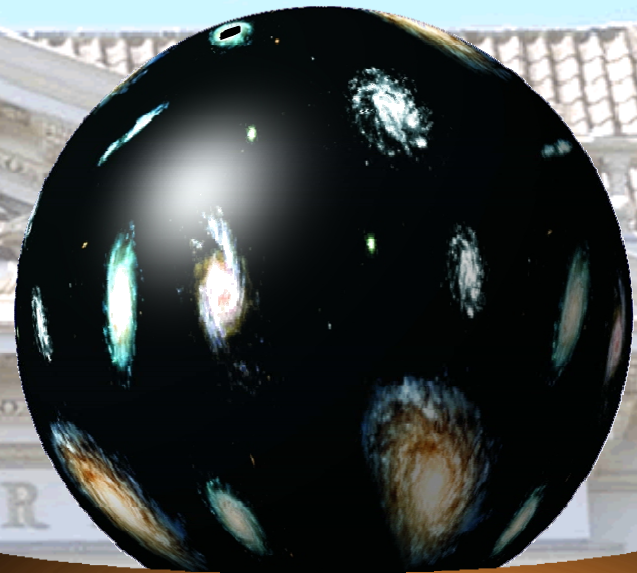
# 1957: Synthesis of the Elements in Stars



E. Margaret Burbidge, G. R. Burbidge, William A. Fowler, and F. Hoyle



u	c	t	$\gamma$
d	s	b	g
$\nu_e$	$\nu_\mu$	$\nu_\tau$	Z
e	$\mu$	$\tau$	W



Strategic Plan  
2007-2012

FOM institute  
for subatomic physics

Nikhef



Strategic Plan  
2007-2012

FOM inst  
for subat  
Nik



VIRGO/LISA

TAARES/KM3NeT

Theory

AS

$e^+e^-$  linear collider

2005

2010

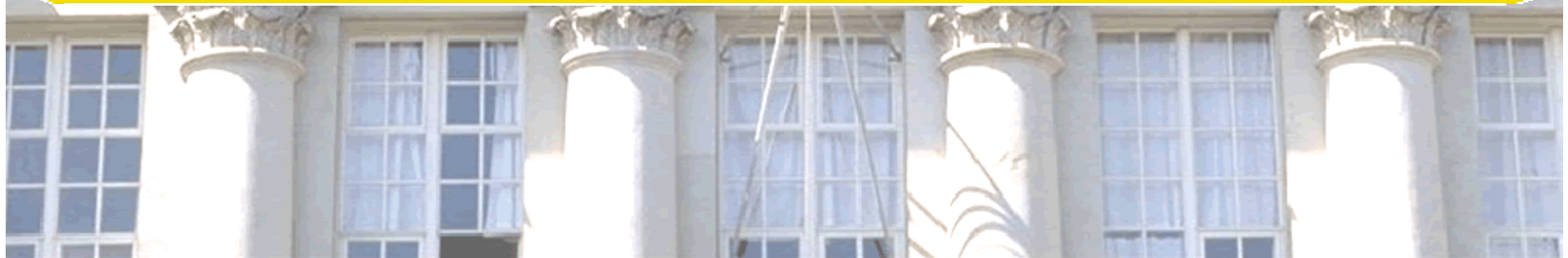
2015

2020

2025



*Dream discovery scenarios for Nikhef include, apart from discovering the totally unexpected, the (almost) simultaneous discovery of e.g. a dark matter candidate particle or a magnetic monopole by one of our LHC experiments and by one of our astroparticle-physics experiments or the discovery of a point source emitting high-energy neutrinos (ANTARES) as well as high-energy cosmic rays (AUGER).*



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Neutrino Mass

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