

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

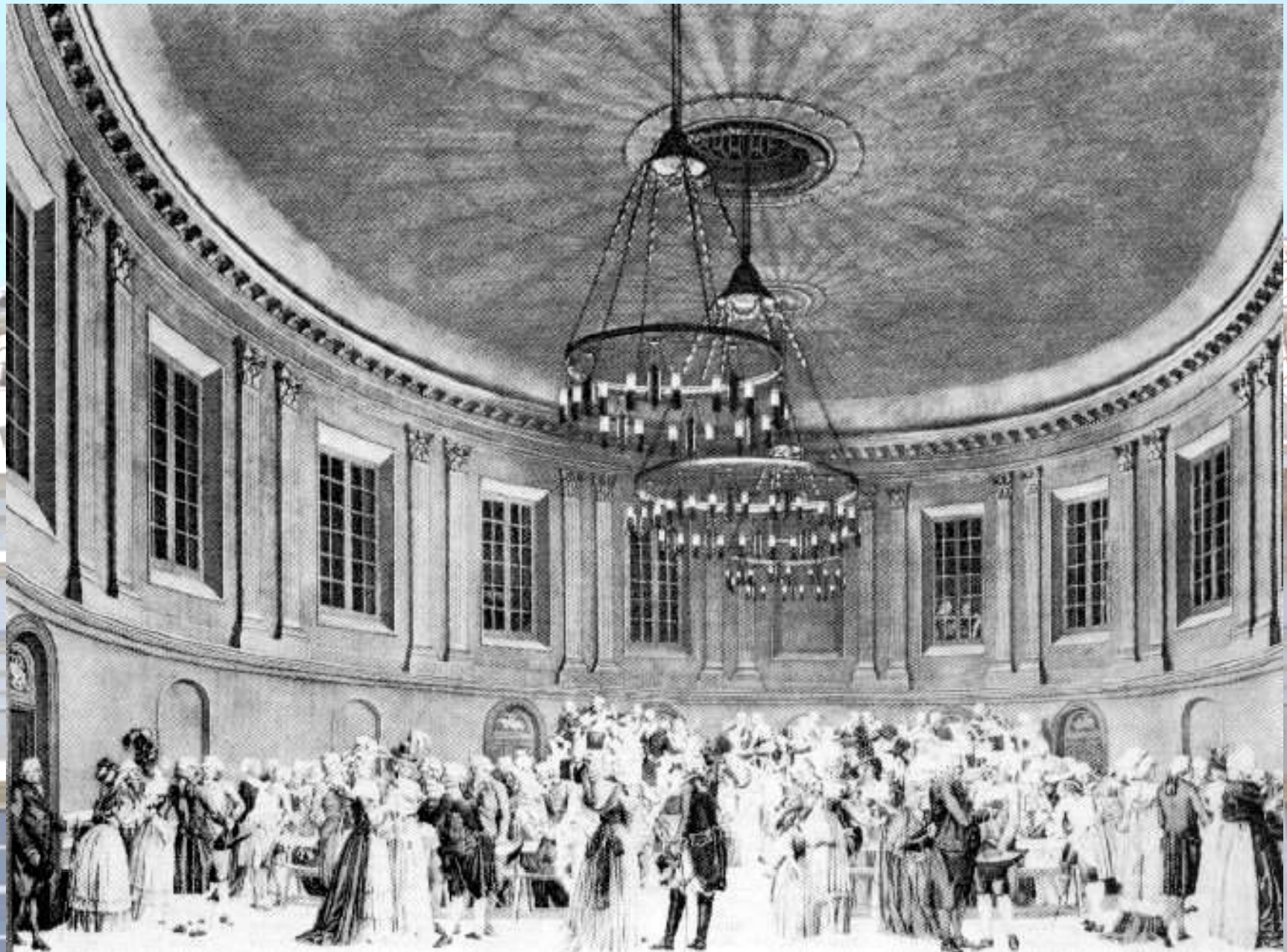
High Energy Gamma Rays
Neutrino Mass
High Energy Cosmic Rays
High Energy Cosmic Neutrinos
Dark Matter direct detection
Gravitational Waves
Low Energy Neutrinos & Proton decay

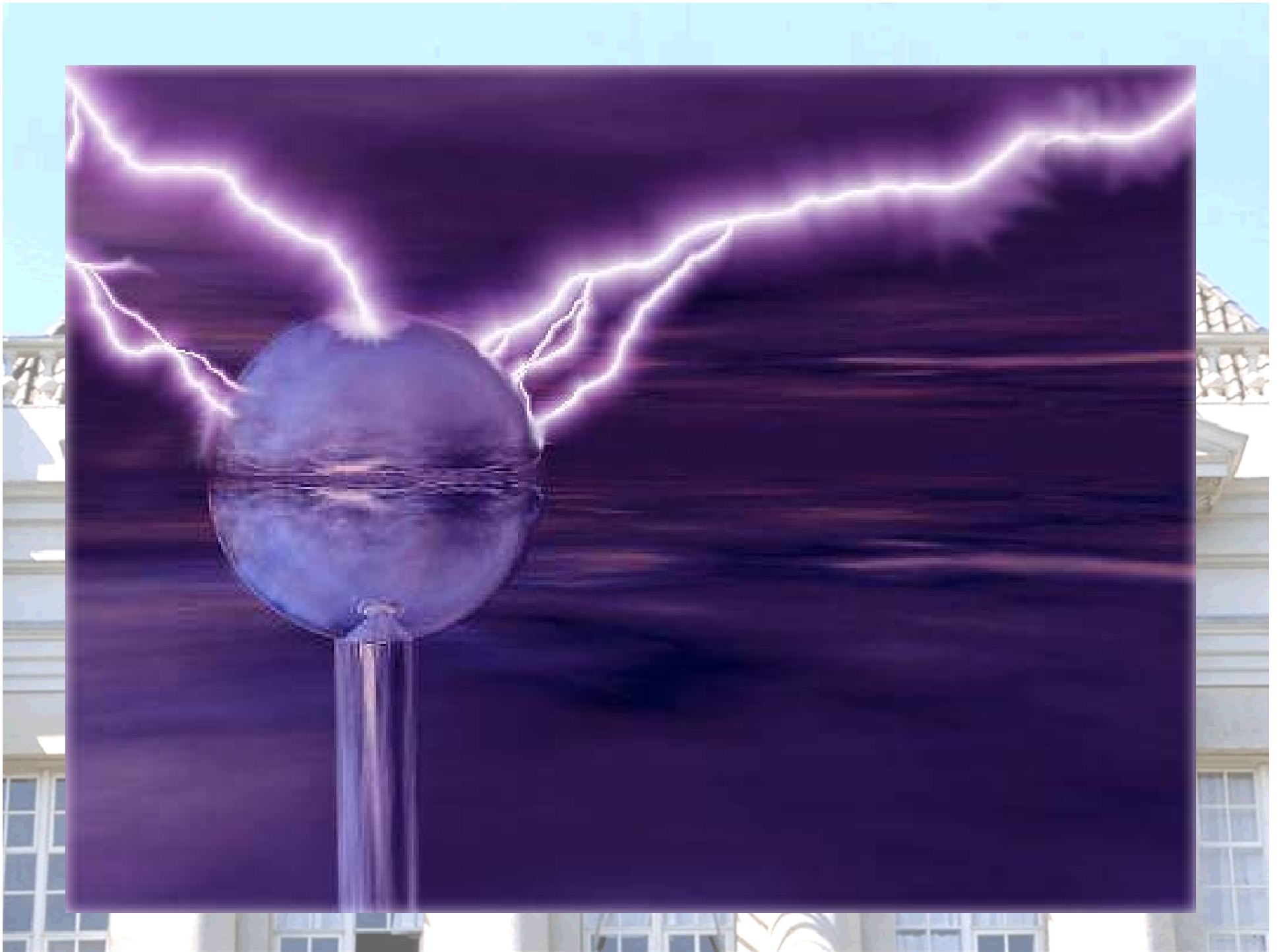
ASPERA



Organised by ASPERA / Nikhef / FOM, Amsterdam, The Netherlands
INFO at www.aspera-eu.org / roadmapmeeting@nikhef.nl

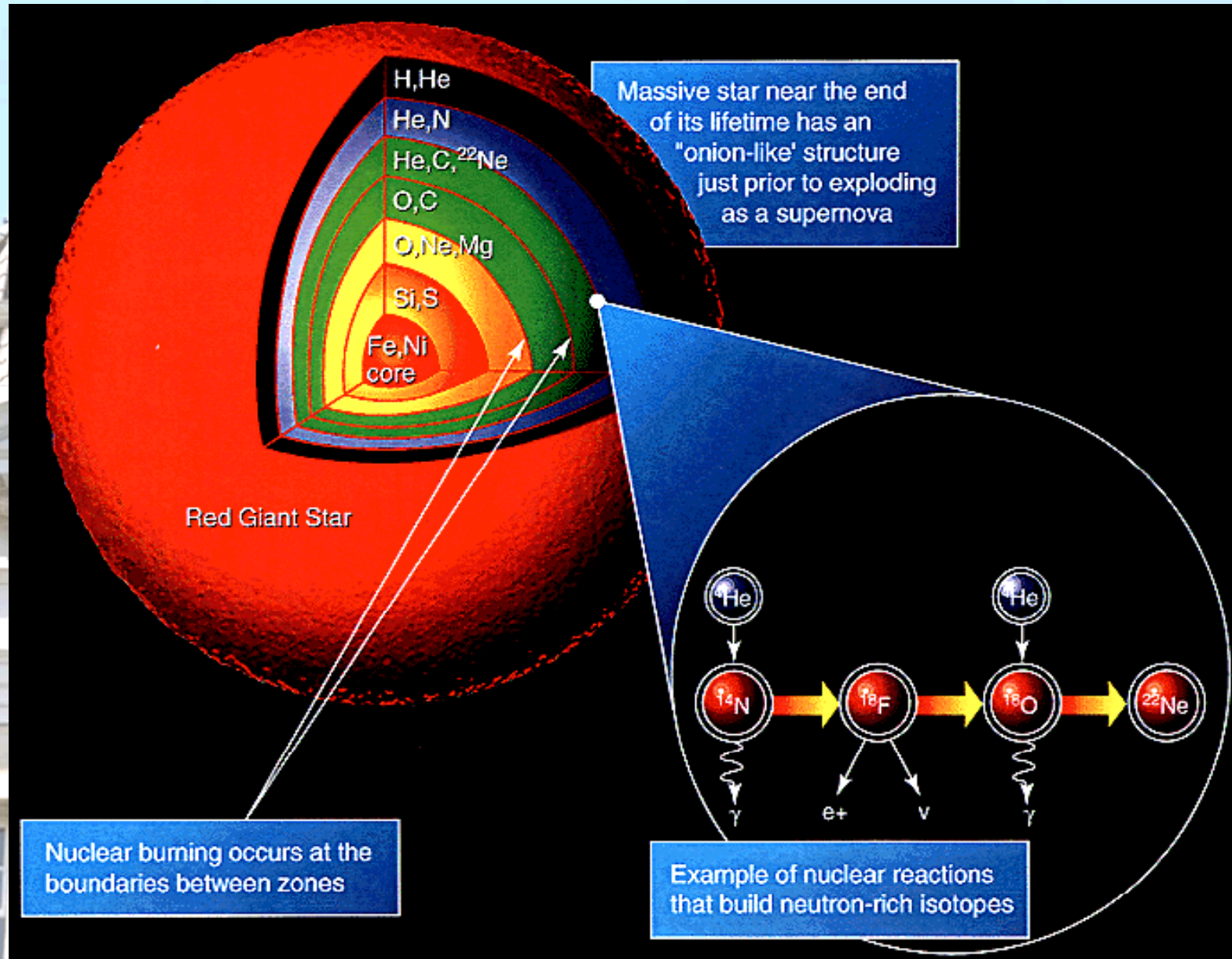




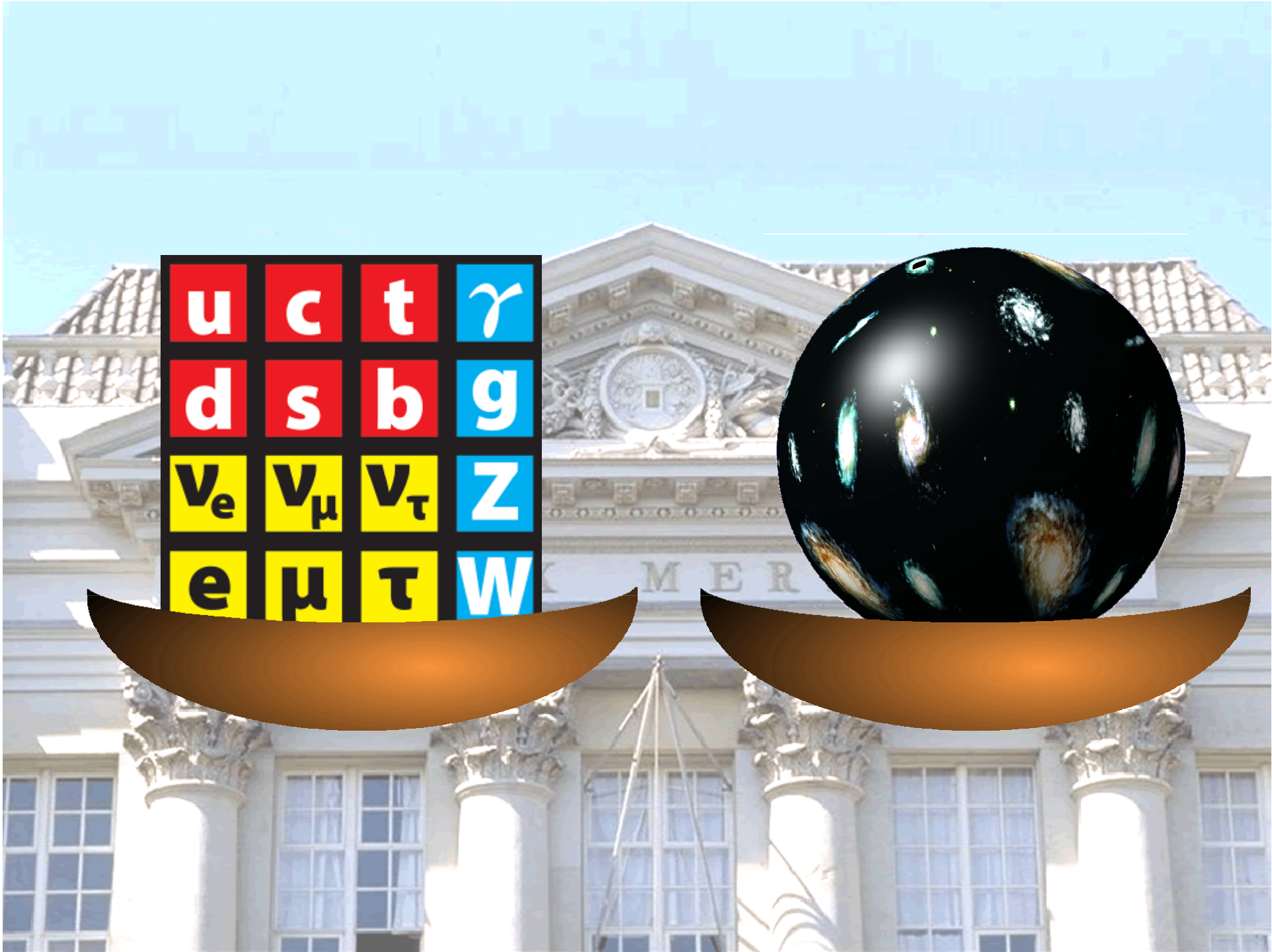




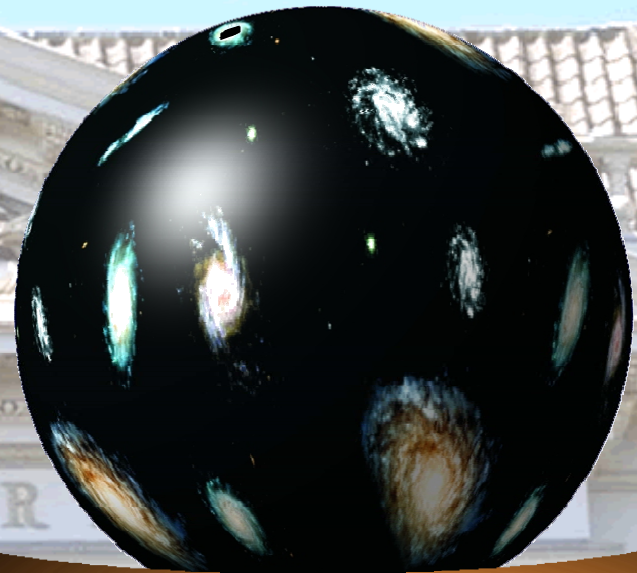
1957: Synthesis of the Elements in Stars



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



u	c	t	γ
d	s	b	g
ν_e	ν_μ	ν_τ	Z
e	μ	τ	W



Strategic Plan
2007-2012

FOM institute
for subatomic physics

Nikhef



Strategic Plan
2007-2012

FOM inst
for subat
Nik



VIRGO/LISA

TARES/KM3NeT

Theory

AS

e^+e^- linear collider

2005

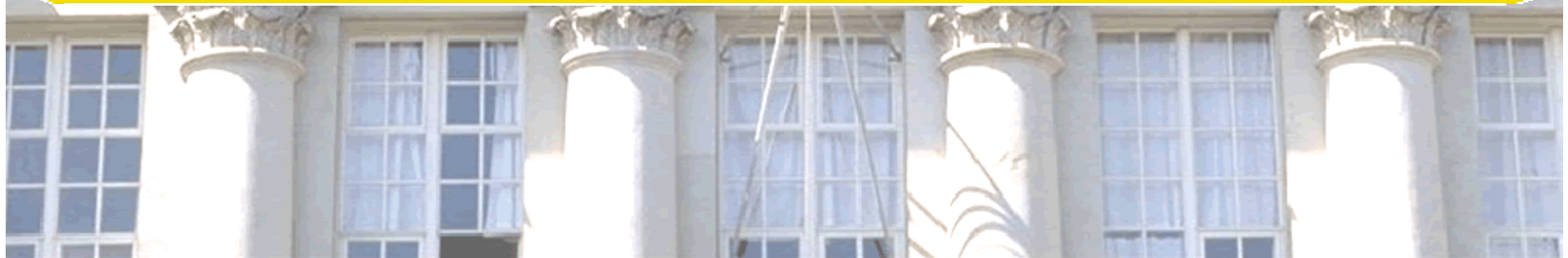
2010

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).



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