Antonio FERRER SORIA
1945-2025

Homenaje por su colega y amigo

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IJCLab/Orsay

Introduction

- Gracias por hacerme el honor de permitirme participar a esta simpática ceremonia. Pido su indulgencia para mi castellano muy imperfecto. No es la primera vez que vds me piden semejante homenaje y ya tuve el honor hacerlo para sus 60 años
- Pues Valencia es para mi un montón de buen recuerdos y guardo muy presente el año que pase con vds a pesar que los créditos no permitan calentar el laboratorio pero eso no es nada dado el clima de esta maravillosa región

Birth Place

- Antonio was born in Gandia on the 21th of February 1945.
- I had the honor and the pleasure to celebrate his 60th birthday in a Palace in Gandia dear to his heart
- How can one approach a physicist's career ?
- Firstly his education as a physicist

Education

- After following le 'DEA de Physique Théorique' (year 69 that was quite a year for the poor professors: how did he behave ?)
- You became Doctor de '3ème cycle' in 1971 and started your PhD at LAL
- Your PhD was:

  STUDY OF BACKWARDS PRODUCTION FROM THE REACTION PI- P ---> P (R) PI+ PI- PI- AT 9-GEV/C TO 12-GEV/C IN THE OMEGA SPECTROMETER. (In French)By A. Ferrer (Orsay, LAL), Jun 1977. 223pp
- The jury: J. Perez y Jorba, Th. Leray, V. Alessandrini, P. Lehmann, J. Six

Publications

- Second one has to consult the list of publications. I have done this with SPIRES and found out that he has 1606 publications
- Apologies: I will not cover the ATLAS period

Expt	Publications
Omega Fwd p	19
Omega γ	12
NA14	5
DELPHI	345
ATLAS	1116

His French colleagues

- Our team:P. Benkheiri[1], J. Boucrot[2], B. Bouquet[2], P. Briandet[1], B. D'Almagne[2], C. Dang Vu[2], B. Eisenstein[1, 5], A. Ferrer[2], P. Fleury[1], B. Grossetête[2, 6], G. Irwin[1], A. Jacholkowski[2, 7], A. Lahellec[2], H. Nguyen[2], P. Petroff[2], F. Richard[2], P. Rivet[3], G. De Rosny[1], P. Roudeau[2], A. Rougé[1], M. Rumpf[1], J. Six[2], J. M. Thénard[1, 8], D. Treille[4], A. Volte[3], D. Yaffé[4], T. P. Yiou[4], and H. Yoshida[2]

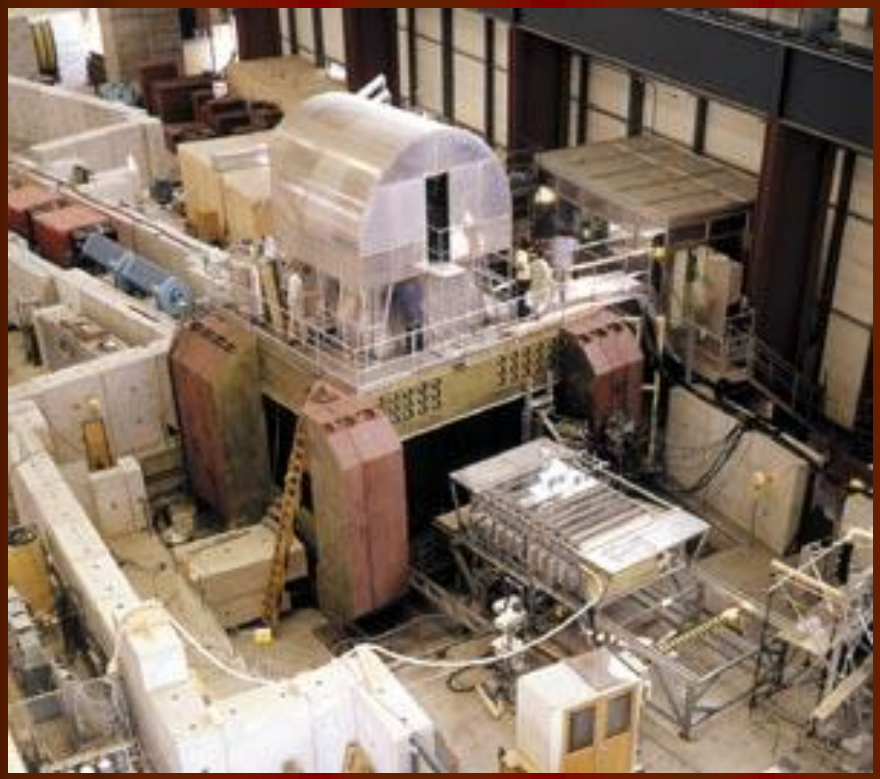
  CERN4, Collège de France3, Ecole Polytechnique1, Orsay2 Collaboration, France

The OMEGA period

- In 1972, the OMEGA spectrometer was commissioned in the West Area and more than a million collisions were recorded that very first year. OMEGA was equipped with spark chambers - replaced at the end of the 1970s by electronic detectors - and a 15 000-tonne superconducting magnet. On this photo we can see the magnet's lower coil and, in the foreground, the support plate for the upper coil.
  No fewer than 48 experiments made use of this device, exploiting beams of various particles at various energies - from the PS at the beginning, and then from the highest energy beams of the SPS. OMEGA thus played a key role in many physics results and activities, notably the production of the J/psi particle, the study of particles carrying charm or beauty quarks, the study of «gluonia», and the CERN heavy ion programme.

- The OMEGA experiments ceased in 1996 when the facilities in the West Hall were shut down in preparation for the construction of the LHC.

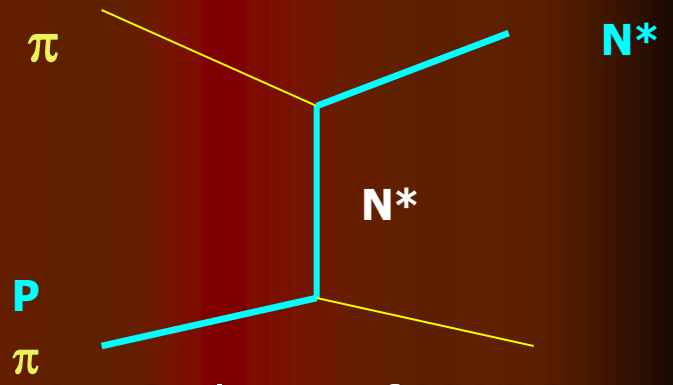
Ω Spectrometer



The Omega spectrometer came into action in the West Area at the SPS during 1972. An array of optical spark chambers can be seen withdrawn from the magnet aperture. The "igloo" above the magnet housed the Plumbicon camera system that recorded information from the chambers. No fewer than 48 experiments made use of Omega, exploiting beams of various particles at various energies - first from the PS and then from the higher energy SPS.

What was the physics at OMEGA ?

- Understanding 'Particle exchanges' to explain elastic π p -> π p or quasi-elastic (resonances ρ, N*)
- Rare processes selected with fast forward proton
  - Backward scattering
  - New resonances decaying into pp (baryonium)



- Selectivity by 'sophisticated triggers' using 2 planes of MWPC to compute the momentum of the forward tracks and, using 2 Cerenkov counters establish that they were not Pions or Kaons.

Memories

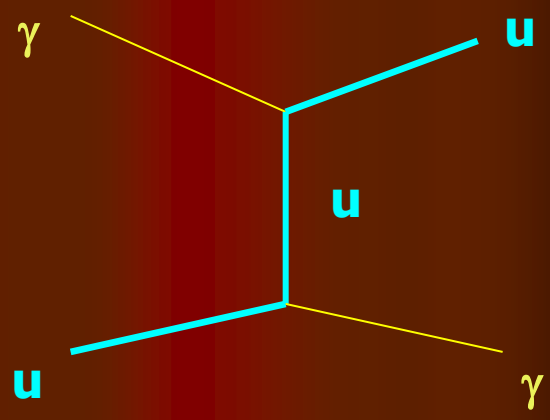
- Antonio's strong personality joined to his very peculiar sense of humour, in the Spanish tradition, was well known and appreciated at CERN and Orsay
- During the Omega period in 1978, I remember Antonio becoming increasingly active at CERN and exerting important responsibilities
- Werner Beusch, on Antonio's skills at Omega, told me: "he is very aware of all the problems, he remembers everything"
- Let me also quote Peter Sonderegger who was the Omega project leader during that time in a Letter addressed to my Director J.P. Perez Y Jorba June 25 1980 (Antonio had spent 2 years at CERN and was going back to LAL)

About his role in WA56 (Sonderegger):

- Ferrer a mené cette expérience de main de maître, alors que je travaillais moi-même en dehors du CERN. Je pense que son passage à NA14 sera bon pour lui et bon pour NA14. Mais il serait extrêmement souhaitable qu'il puisse continuer à exercer sa fonction de spokesman de WA56 jusqu'à la conclusion de l'analyse. Il est, d'une part, le mieux placé à savoir maintenir la cohésion de la collaboration (CERN-Collège de France-X-Neuchâtel), et seul à connaître à fond l'ensemble des programmes d'analyse.

Physics at WA4 and NA14

- Understand the nature of real photons: VDM or point-like
- VMD studies at OMEGA WA4 with tagged photons
- NA14 was the prolongation of the OMEGA program in the North Area with photons of higher energy and higher intensity
- The key measurement was:
- The detector was:
  Lead+glass ecal calorimeter
  from Ω
- Also production of J/ψ
  and heavy flavours



DELPHI

- Great enthusiasm of the community for e^+e^- physics
- What could Spain do ?
- For the DELPHI experiment Spain has provided the TOF (Time Of Flight) and contributed to the FEMC (FWD Lead-glass ECAL)

TOF

The ToF Detector (Time Of Flight) is one of the DELPHI detectors designed initially to fulfill the following objectives:

- To provide a cosmic muon trigger to be used for calibration and alignement of the barrel detectors.
- To provide a fast signal easily included in the second trigger level.
- To provide a measurement of the time of flight of the particles produced in electron-positron annihilations, to distinguish them from cosmic muons (the so called cosmic veto). This information is used in the third trigger level.

The TOF (suite)

- AND MUCH MORE:
  - Hermeticity device
  - Multi-muon detector

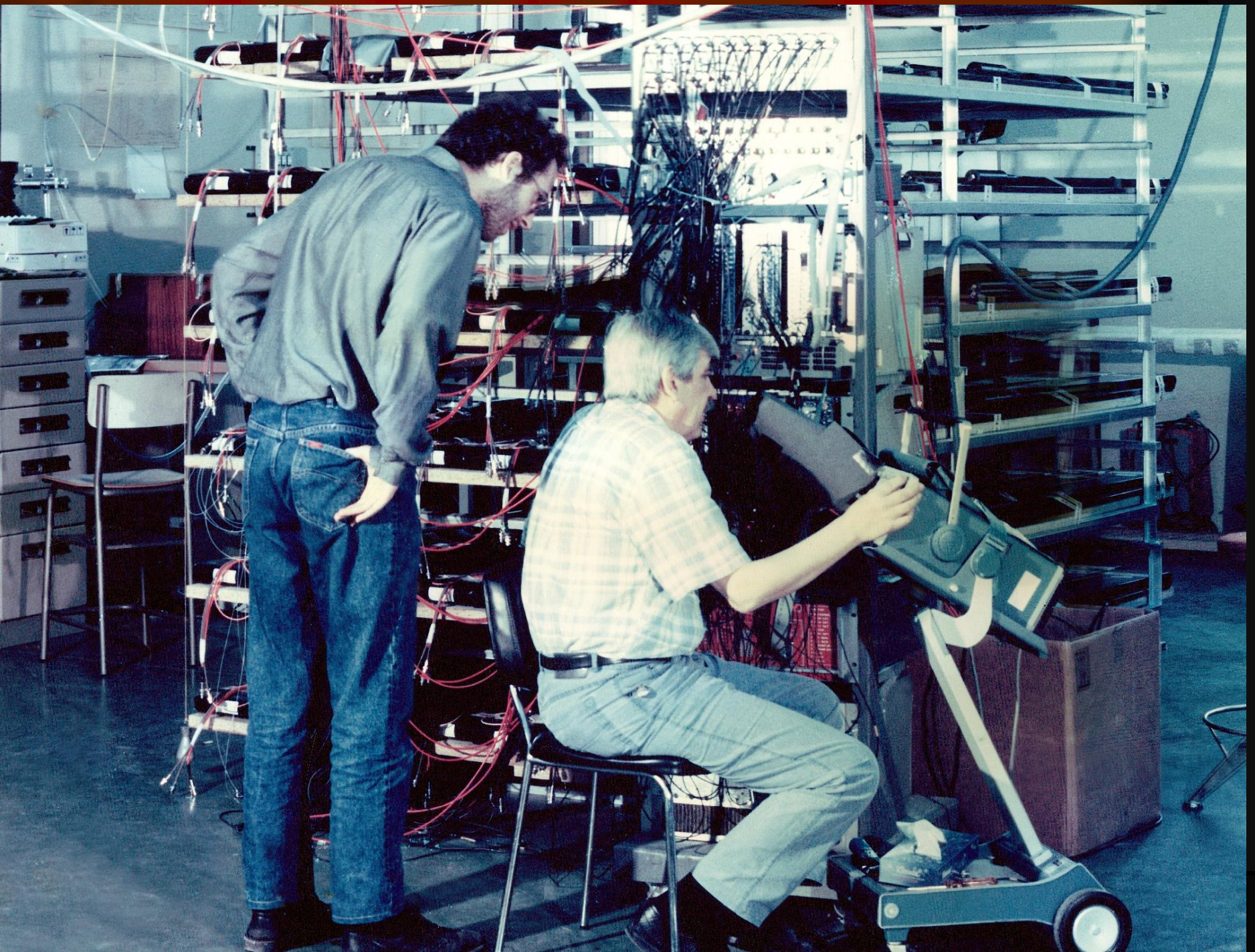
See:
Physical properties of the TOF (Time of Flight) scintillation counters of Delphi. Authors: Benlloch, J. M.; Castillo, M. V.; Ferrer, A.; Fuster, J.; Higón, E.; Llopis, A.; Salt, J.; Sánchez, E.; Sanchis, E.; Silvestre, E.; Cuevas, J.

Nuclear Instruments and Methods in Physics Research Section A, Volume 290, Issue 2-3, p. 327-334.

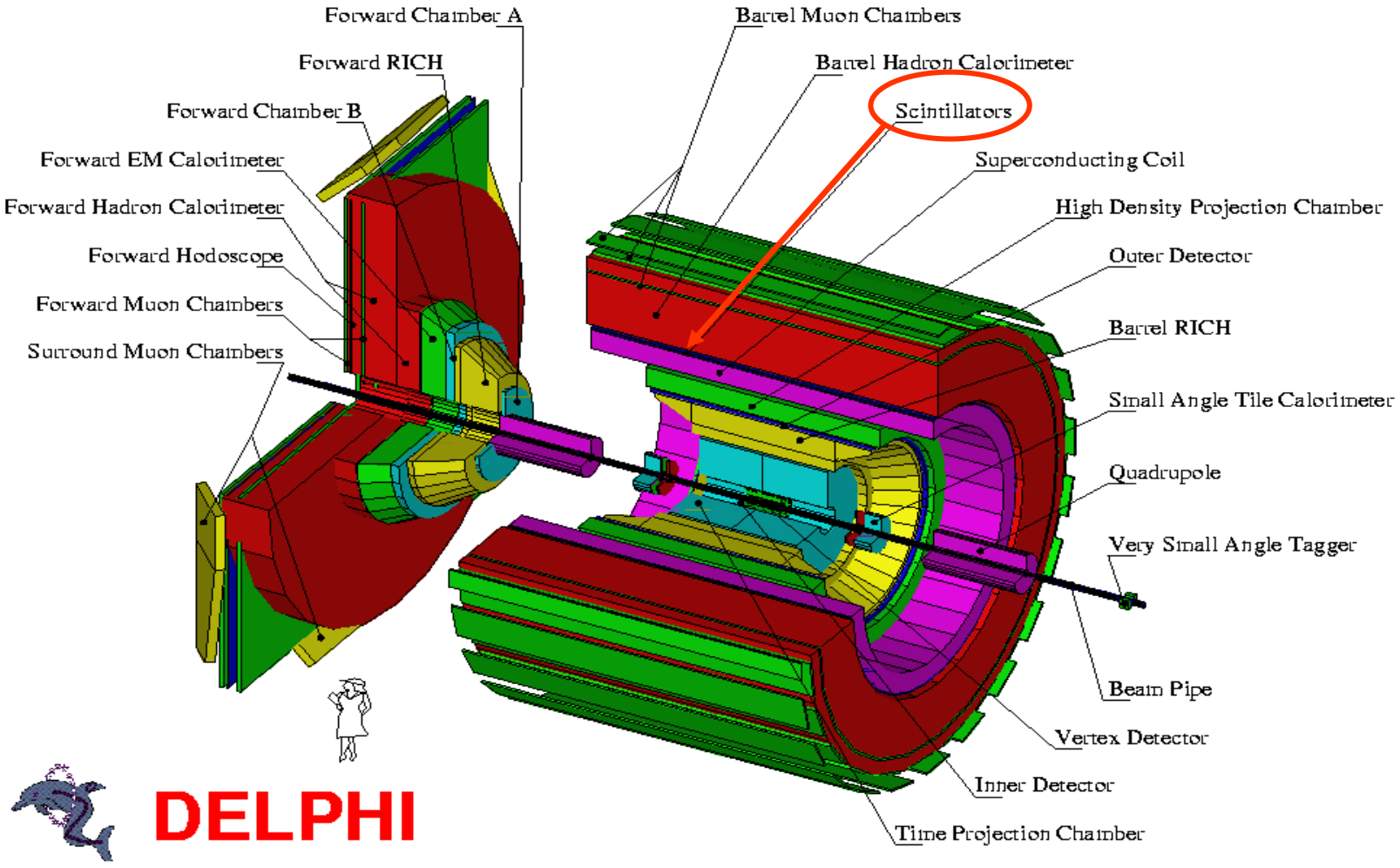
Memories

- In a letter to J. Perez y Jorba in 1984 where you announced that you were leaving Orsay for Valencia you said:

  'Le projet (TOF), d'une envergure peu traditionnelle en Espagne a été finalement approuvé en Conseil des Ministres (septembre 1984)'



DEPHI Detector



High Responsibilities

- The rest of your career as a manager of physics in Spain, as a Director of the Valencia laboratory, is very well known and I am certainly not the most qualified person to describe it
- For me, the important thing to remember is that you have been pioneering the emergence of Spanish physics at CERN

Recuerdos

- Tantos años y tantas cosas han pasado Antonio desde que te conocí en Orsay y me parece que nuestro entusiasmo para la física queda intacto.
- Espero que la amistad franco-española que encarnamos no dejara de desarrollarse en los próximos años.
- Ha sido un gran placer y un gran honor conocerte.
- También recuerdo las deliciosas paellas y el fenomenal Rioja cuando me invitabas en Valencia
- Un fraternal saludo a tu familia y colegas


MANUEL AGUILAR-BENITEZ
QUE 60 AÑOS, NO SON NÁ!...
... lo bueno está por venir
(Antonio Ferrer, Alicante 2004)

La ultima palabra

En fuga irrevocable huye la hora;
Pero aquélla el mejor cálculo cuenta,
Que en la lección y estudios nos mejora

Francisco Gómez de Quevedo y Villegas
1580-1645