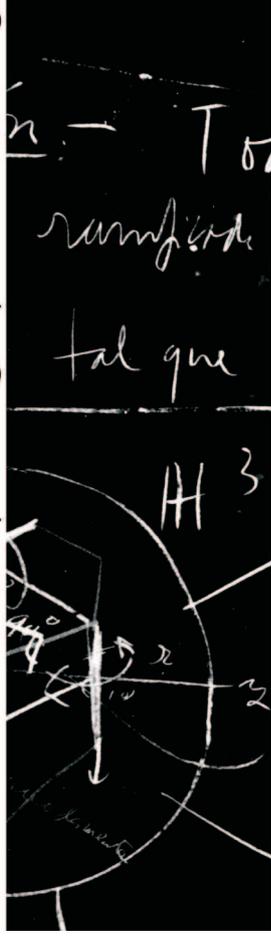


I do not have a photographic memory



F. J. Craveiro de Carvalho

For my parents, who struggled daily to give their children the best possible education.

A very good friend used to tell me that there are several psychological reasons behind the idea of collecting and that none is pleasant (the funny aspect being that he is unable to resist entering any junk shop he finds on the way). It may be so, but it never prevented me from collecting things throughout the years, basically valueless ones.

I do not remember when I started collecting photographs of mathematicians, in most cases taken by me. However, I know exactly why. If I were an optimistic person and wanted to sound sophisticated, I would quote William Wordsworth

*Though nothing can bring back the hour
Of splendour in the grass, of glory in the flower;
We will grieve not, rather find
Strength in what remains behind;*

In more modest terms, I know I was just trying to preserve some moments in space and time.

Now that the horizon line is nearer and nearer for me, I realize that these photographs essentially document a relevant part of my life.

I do not claim any originality for this work. The idea is taken from Paul Halmos's *I have a photographic memory*, published by The American Mathematical Society, and the title is, naturally, a variation on his.

My gratitude is due to Daniel Marques Pinto, for without him this *CD* would not have come into existence. As usual, I relied on my friend Sheila Carter for comments and suggestions.



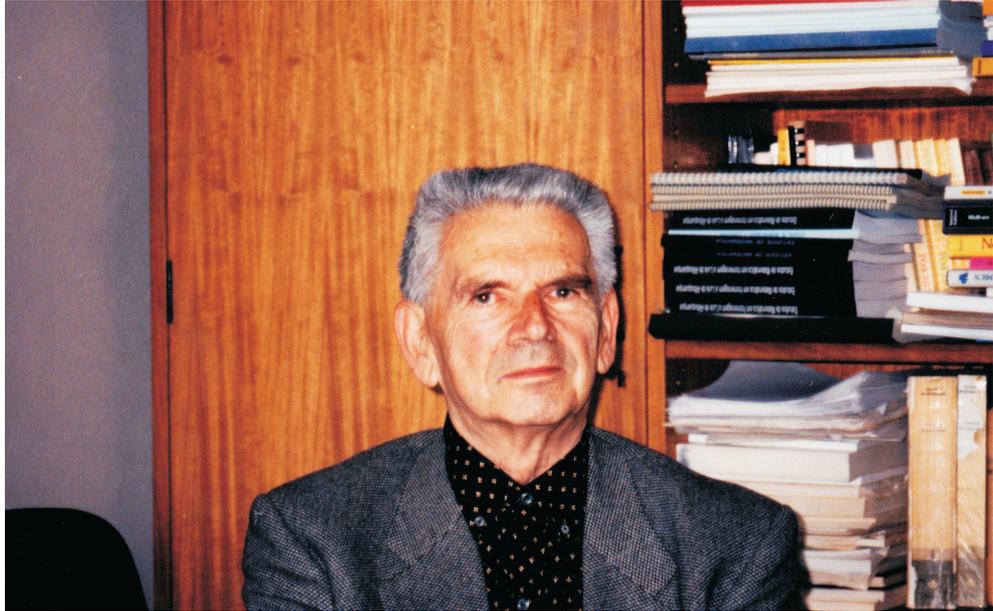
I have no idea who took this picture. We are at the bottom of the stairs leading to the main entrance of the Maths building, at Southampton University, U. K. . It was December 1975 and we were on our way to a pub lunch.



I do not think I have ever been in more distinguished company. The picture was taken at a conference at Durham, U. K., and it must have been July 1982.

The second row is as brilliant as one can get: James Eells, Roger Penrose, Michael Atiyah, Glenys Luke, Nigel Hitchin, Tom Willmore, Shing-Tung Yau, Shoshichi Kobayashi and Jerry Kazdan.

Other distinguished participants include Marcel Berger and Jean-Pierre Bourguignon.



René Thom came to Coimbra in 1995 and to make arrangements for his visit was a nightmare. We invited him for dinner one evening only to arrive to pick him up and be told he was not hungry. He was probably already ill at the time and we did not know.



I was at Southampton and remember to have approached Stewart Robertson, my former supervisor, asking him to call Nigel Hitchin enquiring if he would consider the possibility of being an invited speaker at some meeting at Coimbra. He was unable to get hold of him on the phone.

When I came back I myself wrote him a letter and was very surprised when he answered, "Yes, I would like to come very much."



This is the *class of 1987*. Stewart Robertson, I and my good friend Rosário Pinto are sitting on the steps at the entrance of the Southampton Maths building. Rosário was about to start her PhD and I was finishing a six month sabbatical.



I wrote my PhD thesis under the supervision of Stewart Alexander Robertson. Had I had a different supervisor I might have learned more Mathematics but I would not exchange that for everything I learned from him in all areas of life.

For a time he was one of my best friends and certainly my best mathematical friend. We had a lot of fun together and used to have lots of private jokes. Introducing *“as the actress said to the bishop”* unexpectedly in a conversation was one, to quote from *“The importance of being earnest”* another one.



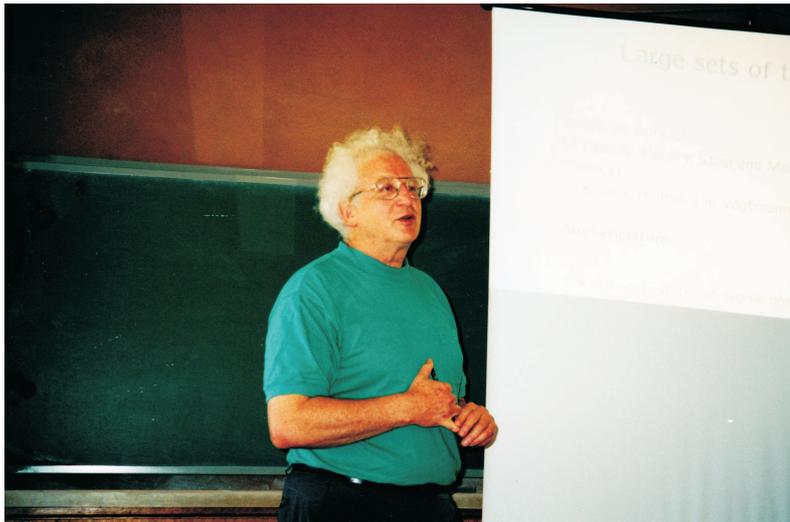
This picture is taken in Stewart Robertson's office. He is holding one of the forty or more cardboard convex polytopes that he built in a summer, during the 90s. A good day's work would be to get 3 or four made.

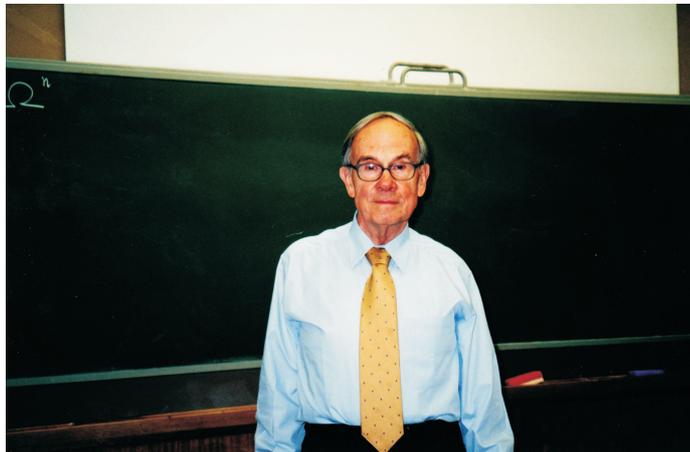


Pete Donelan went to Southampton in my final year there. Though he went to live in New Zealand we kept in touch throughout the years. We met again at the British Mathematical Colloquium, at Warwick University, in 2002.

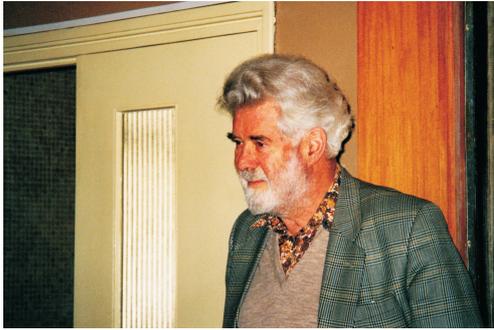


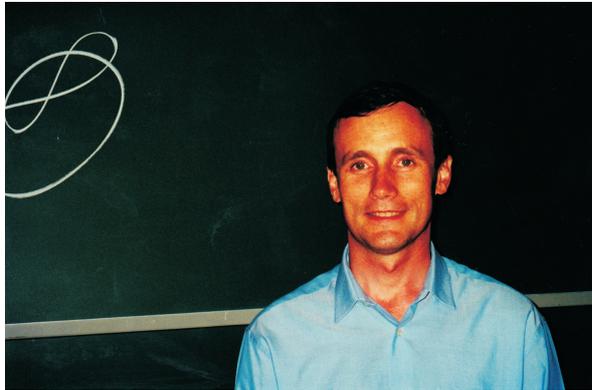
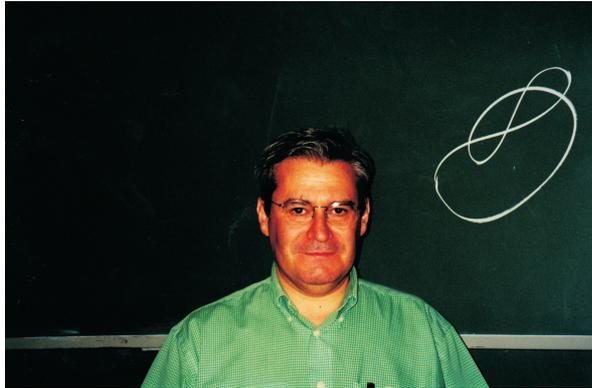
When I was a research student, my room in the Maths tower at Southampton was next to David Chillingworth's. We and our families became good friends. I cannot thank him enough for the number of times he helped me overcome mathematical difficulties.





Jeremy Grey, David Epstein, Pierre Cartier and Friedrich Hirzebruch were among the invited speakers who took part in a series of talks, *Matemática, faces por dobrar*, that I helped to organize at Coimbra, in 2002.





In 2000, as part of the commemoration of the Mathematics International Year in our department, I and my colleague Jorge Picado organized a cycle of sessions we called *Matemática, Histórias e Vídeos*, this titled being suggested by *Sex, Lies and Videotape*, the movie directed by Steven Soderbergh.

Each session consisted of a short talk and the showing of a mathematical video. We invited E. C. Zeeman, Gareth Jones, Jean-Pierre Bourguignon, José María Montesinos and Antonio Costa.



I first met Sheila Carter in 1978. She was the first research student of Stewart Robertson.

I spent time at Leeds, on different occasions. I will always be grateful to her not only for the maths but also to the beautiful places she took me to: Saltaire, Haworth, the Yorkshire Sculpture Park...

I had the pleasure to invite her to give a plenary talk at some Geometry meeting I co-organized at Coimbra, in 1999.



For years, Bernd Wegner had been publishing papers on transnormality, a concept introduced by Stewart Robertson, without people like Robertson, Sheila Carter, Alan West and myself knowing about it. It was not until he published a paper in *Journal of Differential Geometry* that we learnt of his work.

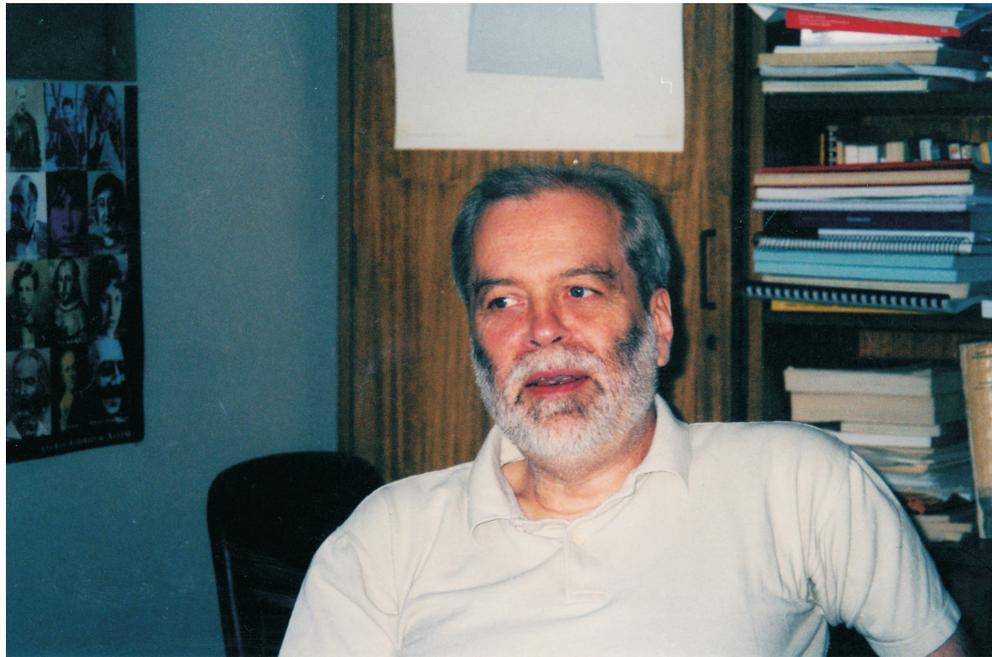
I wrote him a letter in 1986 or 87 but addressed it to a B. Wegner in East Berlin. The person who received it was very kind and realizing she was not the B. W. I was interested in forwarded it to the right one. That was the beginning of a nice friendship and we published a few papers together.

This picture was taken at the Gundel Restaurant in Budapest, where he took me. Yes, it was expensive but not that expensive! I enjoyed it very much. There were five people at the table and three totally different languages were being spoken.



It is true, he did not write lots of research papers, he did however publish one in the Annals, but I consider him one of the most influential mathematicians in the portuguese speaking parts of the world. Elon Lages Lima has written many books and they all deserve top marks. I used several to prepare courses that I taught.

Once I interviewed him and the experience was quite enjoyable. Not only that, I consider the interview one of the best contributions I gave to Mathematics.



We met at Leeds University in 2000. Sheila Carter invited a number of mathematicians to a drink in a nearby pub and we both were among them. It was a surprise to discover he could speak portuguese.

We have been in touch ever since and he enjoys the Fado CDs I send him from time to time. His name is Gudlaugur Thorbergsson.



When he came to Coimbra in 2000, E. C. Zeeman also gave a talk on catastrophe theory. Here he is using his catastrophe machine.

This picture was used in a Clay Maths Institute publication. Unfortunately they got the credits wrong.



A well known portuguese photographer stopped photographing for years because he could not come to terms with the fact that each time he took someone's picture that was invading his or her privacy. I understand his point very well.

Most times I ask for permission, I am not a photographer and I just want a portrait, and some people are nice and some others are not. Yuri Manin was very nice.



I took this picture of David Mumford at the ICM of 1998, in Berlin. Much later, 2007, he gave a lecture at the Coimbra Maths department. I have no doubt that, in my time as a member of the department, he was the most brilliant visitor we had.



In 1973 I started to apply to british universities to do a PhD. It really was an entirely random process since I only knew some names and my maths was really very poor to make a choice.

I might have ended up as a student of C. T. C. Wall, he actually accepted me as a research student. I am glad I decided otherwise. Apparently he was very tough with his students. Nothing to be surprised at since he is one of the great XXth century british mathematicians.

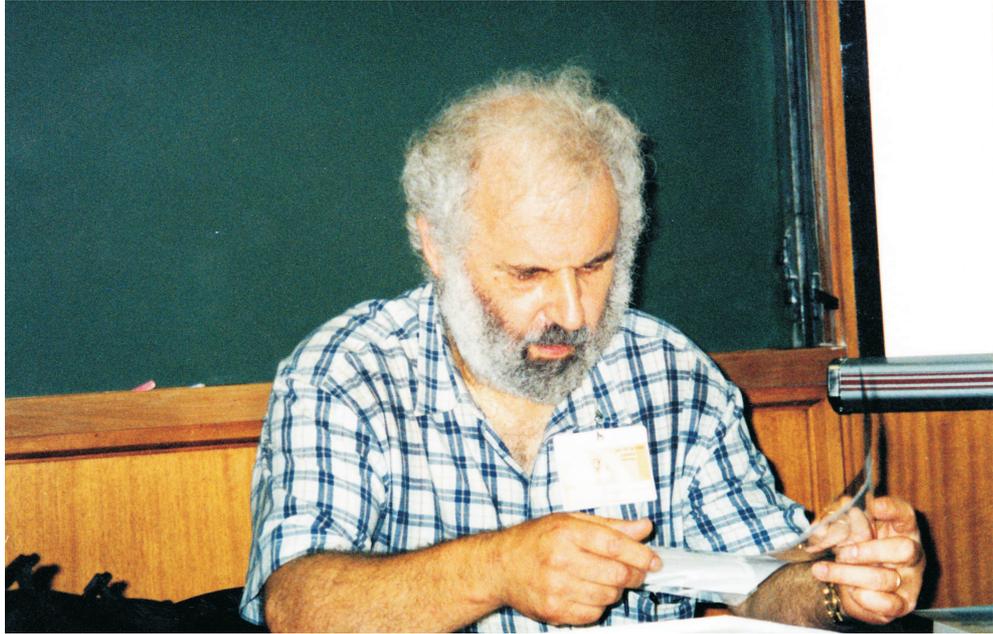


Peter Neumann comes from a distinguished family of mathematicians. His father was Bernhard Neumann and his mother Hanna Neumann, both leading figures in group theory. Their names are linked to the so called *HNN extensions*, where I think *N* stands for Neumann and H for (Graham) Higman. Peter is also a group theorist. Peter gave a very nice talk on Galois's memoirs in Coimbra, in 2009.



Leaving Southampton aside, Leeds was the university abroad where I spent most time. Here we have Alan West, well known for his joint papers with Sheila Carter on isoparametric geometrical objects. He and Sheila always took good care of me.

I suppose that this picture was taken when we were going to have lunch (or were coming from having) since the corridor on the left leads to the senior refectory at Leeds.



Ronald Brown was a colleague of my supervisor at Liverpool.



I and my colleague J. A. Sampaio Martins left for England on the same flight, on 25 September 1974, to start our PhDs. David Edmunds was his supervisor. David came back to Coimbra for his former student's 60th birthday.



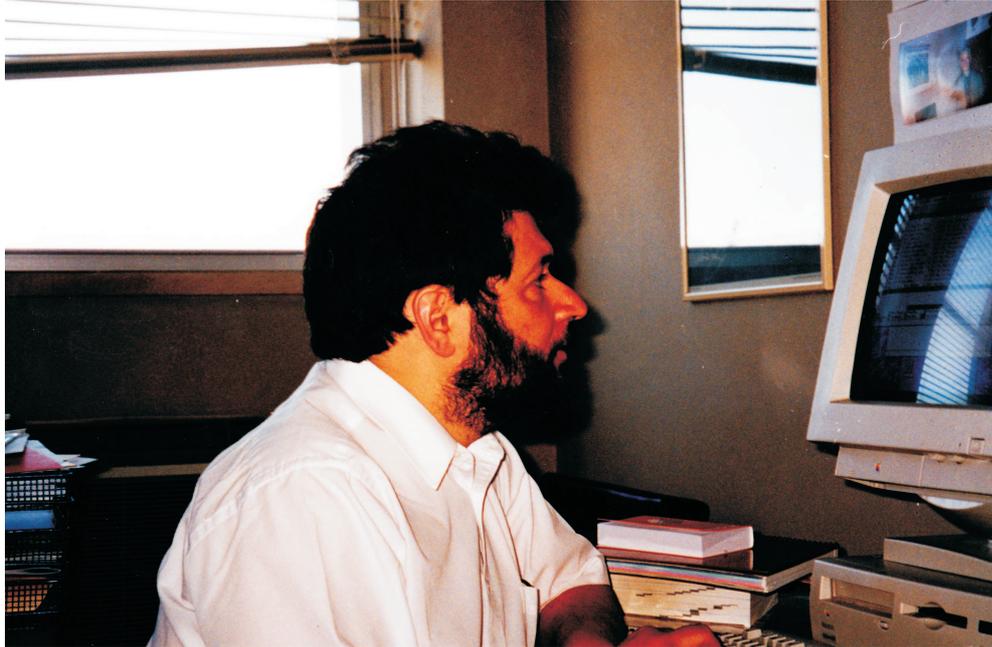
If I am remembering it right Stewart Robertson retired in 1997. The year before, in May, I organized a day in his honour. This picture was taken to mark the occasion.

Besides Stewart, we have three of his former students, myself, Rosário Pinto and Ana Maria d'Azevedo Breda, and my colleagues Joana Nunes da Costa and J. A. Sampaio Martins. Carmen Romero-Fuster, another former student, who flew in from Valencia, had already left.



In the summer of 97 it felt as if everybody was retiring: Stewart, Alan West...

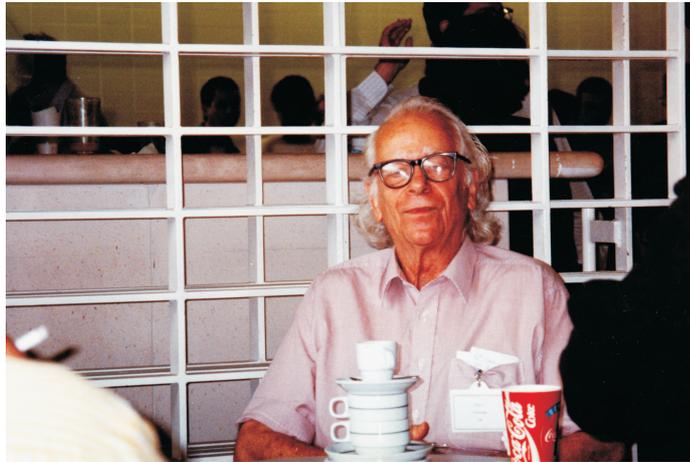
Then there was a Geometry and Topology meeting at Braga. This picture, probably taken by Alan West, shows that in a way the meeting was a farewell to Stewart, who had led the way. Here are six former research students, myself, Rosário Pinto, Ana Maria d'Azevedo Breda, Sheila Carter, Carmen Romero-Fuster and Hani Reda Farran, and Bernd Wegner, who worked on topics closely related to some of Stewart's research.



In the late 90s I did some work for CIM - Centro Internacional de Matemática, based at Coimbra. I was in charge of a bulletin and trying to get interesting material to include I asked a few mathematicians for a short statement on what they considered to be a great mathematical achievement in the XXth century.

As opposed to lots of other people, Efim Zelmanov, a member of CIM scientific council at the time, had a positive reaction to my request and wrote about Emmy Noether, I think.

In the picture, he is checking his mail in my office.

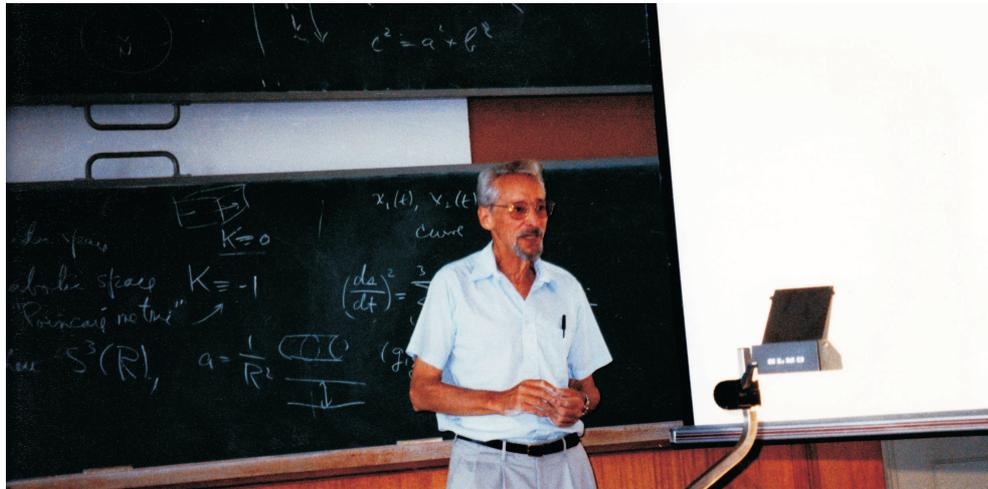


Though he always had a nice word to me, I always felt intimidated by James Eells's mathematical knowledge.

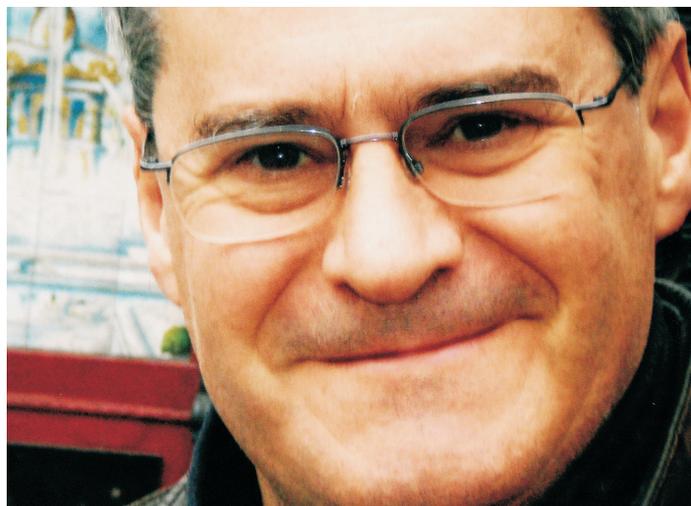
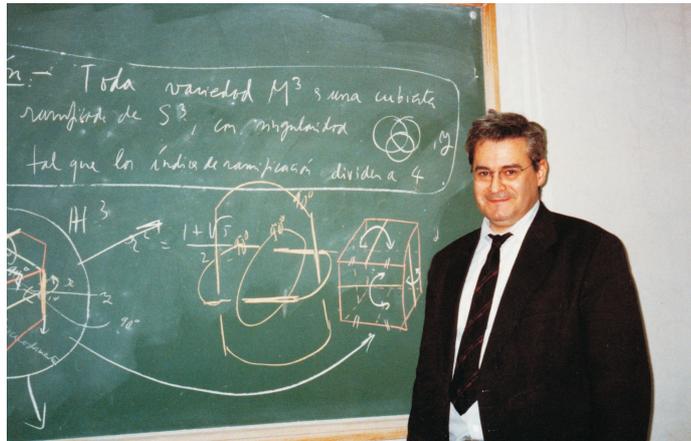
I was surprised to realize that the gap between these two pictures is just five years. The latter one was taken at Coimbra and he already looked very frail.



Even if he spoke chinese, I would not miss a talk by Saunders Mac Lane.



There was a period in my life, long, long ago, when I interviewed several mathematicians. One of them was Robert Osserman.



I suggested José María Montesinos's name for a Topology invited speaker at the GMEL meeting which took place at Coimbra, in 1985. Then we did not see each other until we both attended the British Mathematical Colloquium at Royal Holloway College, in 1997.

Since then, he has been to Coimbra several times. We last met in Madrid on the very last day of 2008, when he showed me round the old part of city. We both caught terrible colds.

While in Madrid, I wrote a cycle of poems, *Calle de José Abascal*, which is dedicated to him.



Dirk Ferus and Izu Vaisman gave two one week courses at the Summer School on Differential Geometry I co-organized in Coimbra, September 1999.



Étienne Ghys was at Coimbra, in 2008, to lecture in a summer school for undergraduates.

The picture, where he is on the right, was taken at Luso, where a meeting which was a follow-up to the school took place. The young man in the middle was one of the most brilliant undergraduates I ever taught.



For some obscure reason, I always envied geometric topologists and their mathematics. People like Colin Rourke or Laurent Siebenmann.

... *Mors sola fatetur*
Quantula sint hominum corpuscula. ...

Juvenal, *Sátiras (X,172)*

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