



# The Russell Energy

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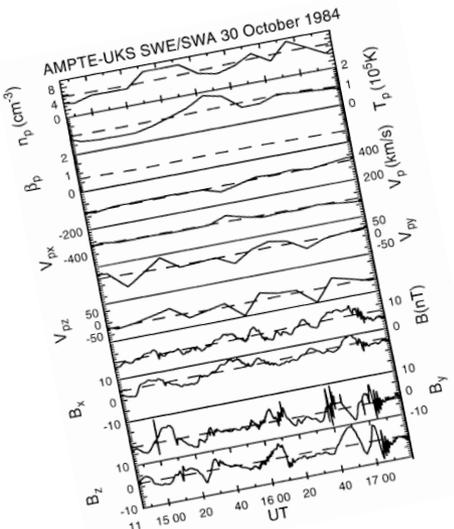
A Celebration of a Life in Science, UCLA, May 8th, 2013.

I met Chris in Hamburg on 1994, during the COSPAR Symposium Collisionless shocks organized by him.

At that moment I was a student working for my PhD at University of London. Main field: Earth's bow shock and foreshock.

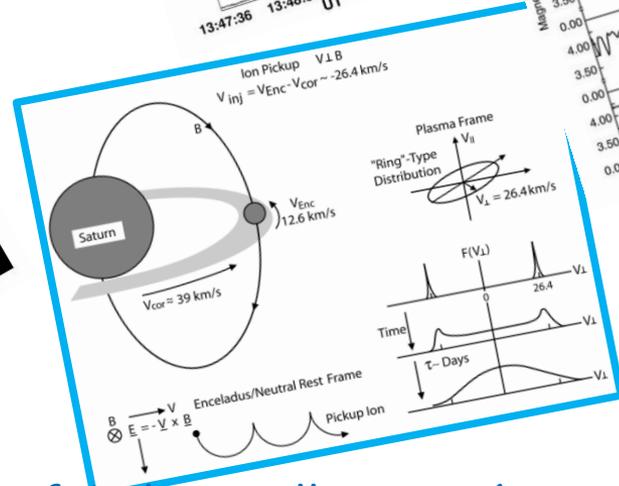
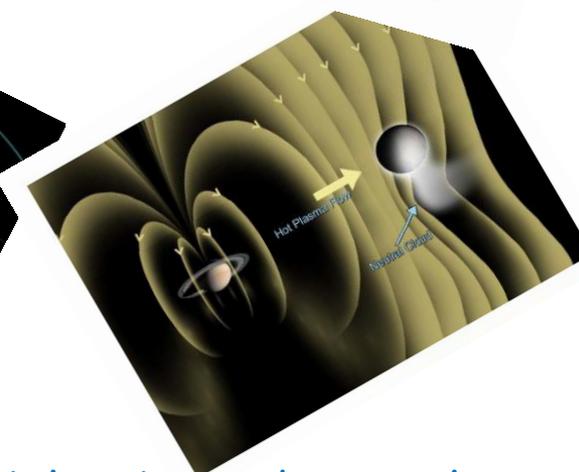
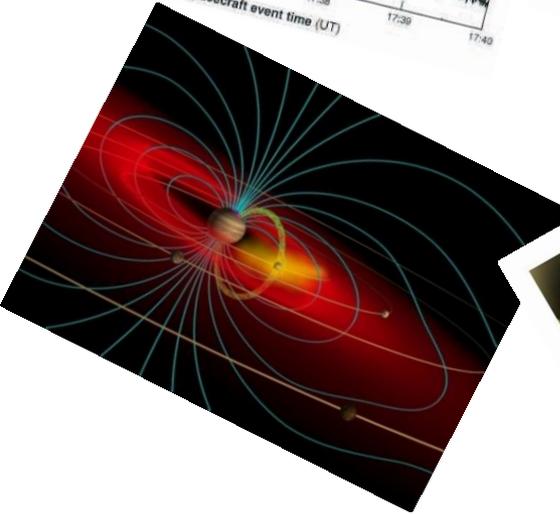
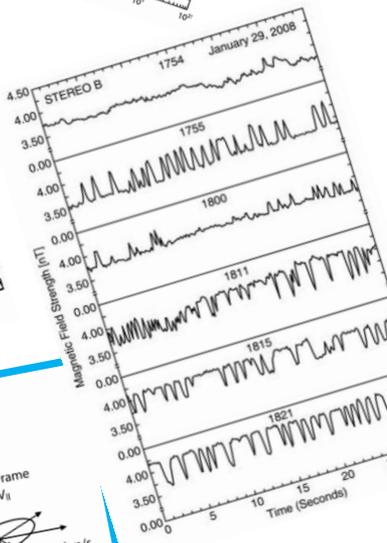
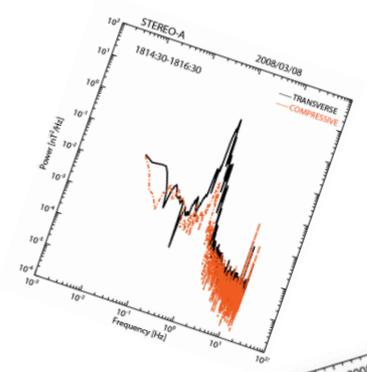
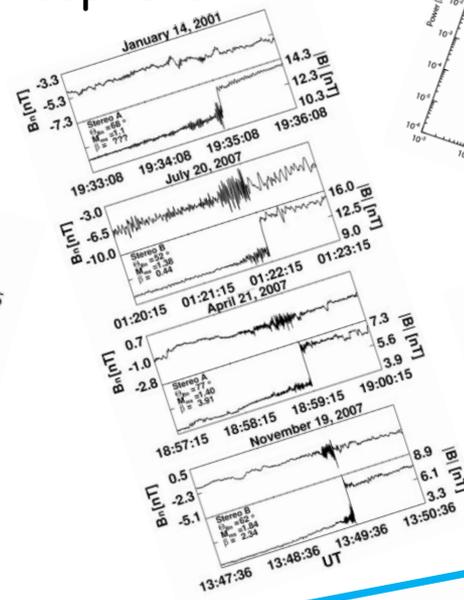
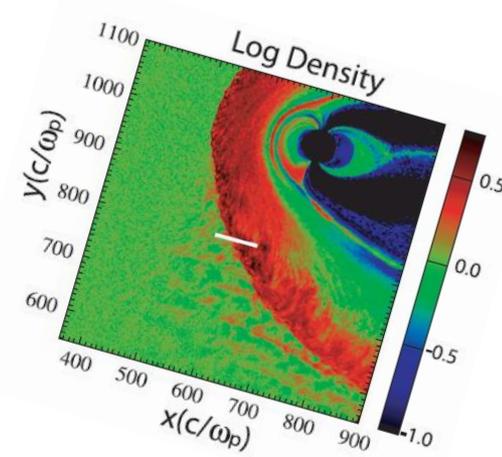
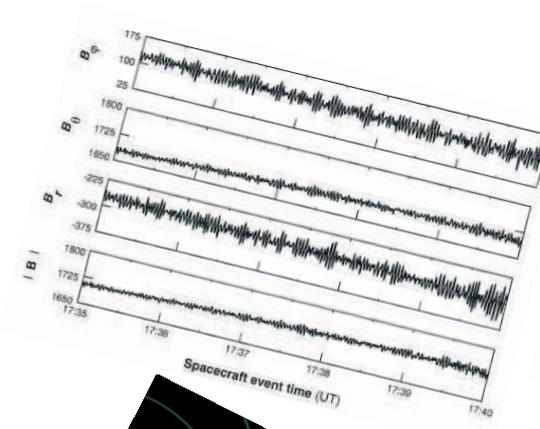
I knew Chris was very famous in the community and had read many of his papers... First impression after 4 days of symposium:

“This guy knows all foreshock data time series by heart”



In 1997 Chris invited me to give a seminar at UCLA, and we started a very fruitful collaboration, which has taken me to work in various space physics areas:

- Earth's bow shock and foreshock
- Waves and mass loading in Giant Magnetospheres
- Solar wind interaction with asteroids
- Magnetospheres/shock formation
- Ion cyclotron waves and mirror mode in the heliosphere
- Interplanetary Shocks, foreshocks, etc



Of course all this work has been done with many fabulous colleagues (many in the audience)

Through the years I realized that Chris is interested in many things: He loves science and his work. He enjoys family time, friends, crosswords and of course: travelling/sightseeing...

Chris has always been incredibly good as a student advisor (> 40 students) and in my case has been an inspiring mentor/colleague. He has the capability of organizing people to work in teams and to make people realize they can do much more than originally thought.

He is very good at making people aware of their talents.

I remember being at UCLA very happy about having worked a lot and finishing something, and Chris telling me:

“Is very good we have understood this, but now we have all the rest of the universe to solve!”

In particular he has been very encouraging with women scientists and has made a point to the community about the importance of increasing the number of females in space science careers. Inspiration for this comes from his mother, a brilliant wife, and two talented daughters. Chris' mother wanted to do a science career but she was not able to do it due to the time she was born at. She was very successful in raising a smart child.



While I have been able to understand many physical processes in the heliosphere by talking and working with Chris, there is still one mystery I have not been able to figure out:

**Where does Chris get all the energy he has to do ALL the tasks he does day by day.... Including incredible amounts of travelling**  
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One day a french colleague told me that he believed Chris had an “army” of people working at UCLA, when I said that the number of students and posdocs/researchers varied, but was not above 10, he could not believe me!





**Chris on conference mood,  
on a meeting excursion:  
Off-work time ?,  
is that the  
secret to solve the Russell  
energy puzzle?**



- several talks
- next paper draft
- maps
- telecon schedule



**Congratulations for a  
very successful career  
and a fullfilling life !!**



See you all  
in CTR80!