Welcome

Welcome everybody:
Dear Students/faculty/staff
There you are, you made it all the way to the CSSS 2012!
I am your Director Sander Bais and I have the pleasure to speak a word of welcome to all of you. This will only be just that, no lecture, no practicalities or users manual of this college/school yet.

Immerse in the SFI environment
You have come here to the CSSS to immerse yourselves in Complexity science, and indeed then the Santa Fe Institute is the Mekka: it is a BIG node in that ever-growing network of institutions around the world that are getting involved in trans-disciplinary research from a -- may I say-- analytic point of view exploiting all the tools that sciences have brought us to probe complex systems, to gather data, to process that data, and model it with evermore sophisticated mathematical and computational tools.

Carriers of the future
Churchill: I feel tremendous forces in this room.
I don’t want to turn this group into a mutual admiration society in spite of that we do have a collection of bright young people by all means, that represents in many ways the hope of our nations where it comes to the future of our planet, our economy, our fragile peace, our need for permanent innovation: scientifically, technologically, culturally. Because I believe this world is in need not only of some serious refurbishing, but also in need of far more fundamental changes, and such changes can only be achieved if we are able to propose viable evidence based scenarios to attack the problems we encounter. And even then an inconvenient truth usually attracts powerful opponents, as we see all around us.

How nice: cultural diversity
How nice to be here for four weeks to join forces, with such a variety of backgrounds, it is this diversity that forms the basis for mutual interest and inspiration and it has always been a basic condition for evolving. Natural selection, great, but you need that diversity to select from and to maintain the intellectual ecosystem we are part of.

Participation: we span a space to expand in; be critical and creative
Of course we as organizers have tried to create an inspiring curriculum reflecting that diversity and it will be presented by a set of outstanding lecturers. These lectures are not just there to be consumed but will span a space of intellectual achievements and opportunities. I want to emphasize that the school has been designed in a way for you to explore that high dimensional space. That requires not just individuals, that will be only critical but also be creative, in thinking up solutions and taking the opportunities that this school offers you. The student activities we have planned reflect this point of view, in that there is ample time to create productive collaborative teams that work on a project of common interest. We have also installed a wiki where you can deposit your own “who is who in what land” page, blogs, links etc etc. there are also Facebook pages connected to that. Lots of opportunity to get to know each other better, to network!
A broad experience
We envisage this school as a broad experience. Of course you will have to try and understand what is going to be explained and taught, chew it until it becomes a piece of cake. But that is only part of the challenge. Maybe that at this very moment we are still a collection of individuals, an ideal gas of individual talents and excellences. But what we hope to achieve is that you guys will interact. We hope that the collection of individuals will become a strongly interacting medium with a whole spectrum of collective excitations and behaviors. We are like an infants brain: ready to go, to grow zillions of connections at a tremendous speed. A minimally hierarchical network with many bidirectional links. Due to such strong and hopefully also long range interactions (both in space and time), this group may go through some transitions and end up in a novel phases that may surprise you and probably also us.

We are the complex system we work on.
In short: we as we sitting here, we are one of the complex systems that we'll be working on. A community, an interacting collective, a complex network, an agent based network subject to a social interactions that is to say a nonlinear dynamics, and if the agents play the strategic games right, I am confident that new opportunities will emerge for all of us. Ultimately it seems that we live in a universe in search of itself. I call on you to share your insights altruistically with your fellow students of different scientific and cultural backgrounds, to make this school a wonderful experience for all.

Thank you for coming to this school.