**Assignment: Materials applications in fusion**

With the construction of ITER, and numerous designs of tokamak-based fusion power plants, the magnetic confinement fusion community has addressed (but not solved!) many of the materials issues associated with building a reactor. You will hear about these from experts during the course this week.

Many of these materials issues have not yet been addressed for a fusion reactor based on inertial confinement fusion. We ask you to work in groups of 4-5 through the week and consider the implications of what you learn about tokamak physics for an inertial fusion reactor. Each group will have a range of expertise: plasma, tokamak, laser-plasma, materials. You should use that combined expertise to prepare a 20-minute group presentation to be delivered to the class at the end of the week. How you organise it is up to you, but each member of the team must play a part in the presentation, as it will form part of the assessment. The group will be given feedback, and a mark which will include a contribution for the involvement of all members.

Following the course, each of you is asked to write an individual essay on how the subject matter you have learnt for tokamaks translates to inertial fusion. The essay should be ten pages in 12pt times new roman, or equivalent font. ***The deadline for the essay is 7th January***.