

Conference Report

Name of Research Engineer: James Champion

Sponsoring company: DuPont Teijin Films

Conference attended: STAR Global Conference; 18th – 20th March 2013

Location: Orlando, Florida

In March 2013 I attended and presented at the STAR Global Conference in Orlando. STAR-CCM+ is the CFD software used for my project and this conference primarily involved users of this software for industrial applications. The main speaker sessions were split into sub-categories such as Nuclear, Manufacturing, Oil & Gas, Aero acoustics and Aerospace & Defence.

My talk, within the Chemical Process session, was on March 19th and showed how I have utilised STAR-CCM+ software in my project work to date. After a nervous start where I developed an inability to successfully point a simple laser pen (!) the talk seemed to go fairly well and I was asked 2 questions upon finishing. A few other people spoke to me on a one to one basis after the session to give suggestions on how I can optimise and improve my models. There were approximately 30 people for the scheduled 20 minute talk in the audience which I was told was fairly standard for the second day of a conference.

The conference as a whole was excellent; it was very smoothly run and there were lots of networking opportunities. In general the talks were of a high standard and it was interesting to see a wide range of industrial applications that use CFD. I particularly enjoyed talks on overset meshing and those within the Oil & Gas session. The keynote speech was made by Apollo 13 Nasa Flight Control Director Gene Kranz. This talk described how Gene and his team had worked tirelessly to save the lives of the three astronauts aboard the failed lunar mission. It was very inspiring and demonstrated how important teamwork is.

At coffee and lunch breaks there were many opportunities to further improve one's efficiency of use of the CFD software itself. All conference sponsors were given an opportunity to exhibit their capabilities. Many of these sponsors offered cluster space and it was useful to get contacts in such applications. As my future simulations will require finer meshing capabilities and wider geometries, such external clusters may be used. I was even offered a free trial on some cluster space. There were also opportunities to meet CFD world experts. I managed to speak with Milovan Perić who agreed to help solve one issue I am having with the software. Milovan is a co-author of an excellent book on CFD theory and is very highly regarded in the CFD world.

On the last day of the conference (March 20th) there were a number of CFD Workshops that were aimed at helping users in certain specialist topics of importance for numerical applications. These ranged from flow optimisation to meshing and again were very useful and will hopefully prove beneficial for future work. We were also introduced to IdeaStorm, an online forum where users can suggest and vote on potential new ideas for future versions of STAR-CCM+ software.

There are certainly a number of things I will take away from the conference and it was definitely a worthwhile visit. Good food and highly educational theme park visits on days either side of the conference (Figures 1 and 2) made for a very enjoyable trip.

I would like to acknowledge Dr. Richard Greenwood for attending the conference and providing excellent local knowledge of Orlando.



Figure 1: Hollywood Studios.



Figure 2: SeaWorld.