# MO Workshop WELCOME & INTRODUCTION

## why MO?

* in 1975, while a research fellow in Leicester University, I proposed auto-hex meshing to my PhD student
* 10 years later, then running our company FEGS Ltd, Malcolm, who had joined us as our research director, suggested MAT might help with auto-hex meshing
* well, we could say the rest is history, but we should say that Cecil Armstrong at QUB picked this up as a major research topic and many of you will know of the excellent work he did with his colleagues there
* in the early 90’s we persuaded MSC to fund us to develop auto-hex meshing based on the MO – for a few years
* hindsight then tells us that the missing link at that time, was CAD geometry cleaning
* so from 1994 we spent a decade establishing CADfix
* then in 2004 I decided that the time was ripe for another attack on this subject and that the MO seemed to hold more promises than just hex meshing
* problem then was to fund its development
* to shorten this story, we won support and funding from large companies like RR and AIRBUS to develop MO applications, in dimensional reduction and air-space blocking respectively
* these projects have now enabled us to make progress with our MO technology

## why this workshop?

* clearly momentum has been building in the area of MAT and MO and it seemed timely to try to bring people together who have been working on both computing the MAT or MO and their applications
* so we invited those we have worked with on these topics and others we could identify around the world
* and YOU came
* so thank you
* and we look forward to an interesting two days

## kick off

* to kick off, I have asked Malcolm and Tom to introduce the problems of MO computation
* Malcolm I have already sort of introduced by way of our shared history
* Tom is a few years post-doc from the Cambridge University Rainbow group which in recent years has focused on geometry modelling problems, and we are pleased to have the leader of that group, Professor Neil Dodgson here
* SO, over to Malcolm and Tom