Stochastics Working Group

Introduction

- The CAE/Simulation market continues to see rapid and sustained growth

- Two recent innovations within the Analysis & Simulation community are:
    1. The low cost of compute capacity
    2. The ever increasing sophistication of simulation software

- The use of stochastics has been validated in the commercial automotive crash and test applications

- The use of stochastics is applicable across engineering disciplines

    These trends are continuing and we can now expect to mimic true lifelike analysis through realistic and verifiable iterative analysis.

NAFEMS Objectives

NAFEMS mission is to act as a trusted source and a collaborative resource for the best engineering modeling, simulation and analysis practices in the development of safe, reliable, and affordable products. Its focus is to champion and improve best practices, to promote and enrich educational opportunities aligned with the rapidly-advancing technologies, and to advance the productivity and quality of virtual product development processes.

Specific objectives of NAFEMS are to:
- – Promote **COLLABORATION** within the international engineering analysis and simulation community,
- – Stimulate **INNOVATION** via transfer of knowledge in the use of advanced scientific, engineering and computing technologies,
- – Maximize **PRODUCTIVITY** through improved best practices used in product development engineering processes,
- – Implant **QUALITY** in the methods and techniques exploited by virtual product development processes.

NAFEMS is a not-for-profit membership association of nearly **800 companies** from all over the world.

NAFEMS Stochastics Working Group

- SWG Purpose:
  - Promote the adoption and further development of practical applications to meet the Value Propositions
  - Give unique insight and perspective into the area of stochastics.
  - Collaborate on recent developments
  - Share breakthrough technologies

NAFEMS Stochastics Working Group

- Mix of industrialists, consultants, vendors, and academia:
  - Provide recommendations to advance the user community
  - Share breakthrough technology to the dedicated community
  - Provide support to the SWGSC
  - Publish whitepapers
  - Focus on the user community

NAFEMS Stochastics Working Group Steering Committee (SWGSC)

- Based on a core team of 9 members:
  - Proactively represent the working group
  - Provide recommendations to advance the user community
  - Share breakthrough technology to the dedicated community
  - Publish whitepapers (with SWG support)
- End-user driven

SWG Steering Committee

Members:

➢ Michel Klein – ESA

➢ Sadek Rahman – Daimler Chrysler

➢ Tsuyoski Yasuki – Toyota

➢ Alexandar Karl – Rolls-Royce

➢ Raj Rajagopal – Pratt & Whitney Rocketdyne

➢ Kazuhiro Iijima – Nissan

➢ Mats Larsson – SAAB

➢ Rodney Dreisbach – Boeing

➢ Mary Fortier – General Motors