

INDUSTRIAL APPLICATIONS OF DEM AND CFD-DEM

CHRISTOPH KLOSS¹, CHRISTOPH GONIVA¹
ROUVEN WEILER² AND JOSE MAGALHAES³

¹ DCS Computing GmbH
Industriezeile 35, 4020 Linz
 {firstname}.{lastname}@dcs-computing.com, www.dcs-computing.com

²: BASF SE
Ludwigshafen, Germany
rouven.weiler@basf.com

³: John Deere
Moline, IL, US
MagalhaesJoseF@JohnDeere.com

Key words: DEM, CFD-DEM, Industrial Applications

ABSTRACT

Macroscopic granular particles the flow involving fluids and granular particles are everywhere - in industry, environment and everyday life. Sugar, sand, ores, tablets, chemicals, biomass, detergents, plastics, crops, fruits need to be harvested, produced, processed, transported and stored.

We aim at highlighting the possible applications and remaining challenges for DEM and CFD-DEM modelling in fields such as steel industry, chemical industry, pharmaceutical industry, consumer goods industry, agricultural machinery, food production, powder metallurgy, process industry and plastics production.

Contributions of applications of DEM and CFD-DEM modelling to those and related industrial applications are all welcome.