

Time	Title	Presenter	Company / institution
8:00	Registration		
9:00	Opening and introduction of the workshop	Adam Tvaruzka	ESA
9:15	Gears = Hard! A Lesson Learnt	Matthew Holland	ESTL
9:35	Gear Coatings for harsh Aerospace Conditions	Hanns Amri, Lorenz Braumann	ADT Engineering
10:00	Break		
10:20	Gears metallic materials, applicable standards, typical problems, the do's and don'ts from ESA perspective	Adrian Graham	ESA
10:50	Optimized Harmonic Drive Gears for Space Applications - New Products and Technical Progress	Sebastian Sonntag	Harmonic Drive SE
11:15	ESTL's Support for Gear System Development – Current	Achilleas Vortselas	ESTL
11:45	Break		
12:05	ESTL's Support for Gear System Development – Future	Simon Lewis	ESTL
12:25	Gears plasma nitriding - Lessons learnt	Alain Blanc	ESA
12:45	Gears procurement - Lessons learnt	Tim Tattusch	OHB
13:00	Lunch		
14:00	Introduction of the moderated discussions	Adam Tvaruzka	ESA
14:10	Moderated discussions		All participants
14:50	Completion of the discussions	Adam Tvaruzka	ESA
14:55	Gearbox design capabilities - from concept to space	Holger Cermak	KISSsoft
15:15	Break		
15:40	Summary of the moderated discussions	Adam Tvaruzka	ESA
15:55	Overview of Bodycote nitriding process capabilities, focus on Nivox LH process.	Sylvain Testaniere	BODYCOTE
16:20	Possibilities and Potentials in Gear Research at FZG	Michael Geitner	FZG
16:45	Deterministic Signal Extraction in Rotating Machinery: An Order-Based Approach to Gear Mesh Quality	Alessandro Paolo Daga	Politecnico di Torino
17:00	Break		
17:20	Testing of 3D printed polymer gears for vacuum applications	David Košťál	Brno University of Technology
17:40	Gear technology experience and initial design considerations for Hybrid electric gear turbopump for reusable rockets	Razvan Nicoara	COMOTI
18:00	Conclusions of the workshop	Adam Tvaruzka	ESA