

**"The First ESA-NASA Working Meeting on Optoelectronics:  
- Fiber Optic System Technologies in Space"**

**5<sup>th</sup> and 6<sup>th</sup> of October 2005  
Einstein Hall  
ESTEC/ESA  
Noordwijk, The Netherlands**

**Program of presentations**

# WEDNESDAY 5 OCTOBER 2005

## 09:00 START OF THE DAY

Opening  
ESA

Overview of Usage and Testing of Optical Fiber Components in Space Environments, Survey 2005  
Suzanne Falvey - **NORTHROP GRUMMAN** and Lee Thienel – **JACKSON AND TULL**

Fiber Optic Links in the ESA SMOS mission  
Martin Mosberger and Peter Mueller - **CONTRAVES SPACE (Switzerland)**

JPL Lessons Learned with Space Based Optical Fiber Packaging  
Cheryl Asbury - **JPL NASA (USA)**

Applications of Fiber Amplifiers for Space  
D. Barry Coyle - **GSFC NASA (USA)**

## 11:00-11:30 COFFEE BREAK

ISS Programmatic Journey for Optical Fiber Links  
David Gill - **BOEING (ISS JSC) (USA)**

The European experience in using fiber optics in the Columbus Module for the ISS  
**C. Canovai, K. Mellab ESA (The Netherlands)**

- a. Radiation Effects on Optical Fibers  
Jochen Kuhnhehn – **FRAUNHOFER INSTITUTE (Germany)**
- b. Radiation Effects in Tunable Lasers  
Tom Farrell – **INTUNE TECHNOLOGIES (Ireland)**
- c. Fiber Optic in the ESA SMART-1 mission to the Moon  
Imke Kuester – **LEONI FIBER OPTIK (Germany)**

## 13:00-14:00 LUNCH BREAK

Fiber Optic Gyroscope for the Planck and Pleiades missions  
Thomas Buret – **IXSPACE (France)**

Space Qualification of a fiber Optic Sensors system for the X-38 vehicle  
Arnd Rautlinger - **KAYSER-THREDE (Germany)**

Rendezvous Sensor on ATV: Fiber Optic Line of E-box and Optical Head  
Bettina Moebius - **JENA-OPTRONIK (Germany)**

Fiber optic components in the Laser Communications Terminal on TerraSAR-X  
Ulrich Hildebrand – **TeSAT (Germany)**

## 16:00 VISIT TO THE S/C TEST CENTRE AND THE ISS INFORMATION CENTRE

---

---

## 18:00 END OF THE DAY

**Dinner in Noordwijk**

# **THURSDAY 6 OCTOBER 2005**

## **09:00 START OF THE DAY**

Tutorial: Qualification of Commercial Optical Fiber Components for Space Environments  
Melanie Ott - **GSFC NASA/MUNIZ (USA)**

Heritage and Lessons Learned for Optical Fiber Devices in Space  
Martin Seifert – **NUFERN (USA)**

Space Flight Heritage Optical Fiber Cable  
Doug Hardy - **W.L. GORE (USA)**

## **11:00-11:30 COFFEE BREAK**

Fiber optics connectorisation in the spacecraft environment  
Marco Luisoni & Carlo Holdener – **DIAMOND (Switzerland)**

Study Results of the International Space Station Optical Fiber Failure Analysis  
Henning Leidecker -**GSFC NASA (USA)**

a. CNES: Laser and fibre components qualification results  
Linda Mondin – **CNES (France)**

b. Fiber Optics in CNES missions- Opto-pyrotechnics experiment in DEMETER  
Denis Dilhan –**CNES (France)**

c. Opto-pyrotechnical technology for Space Applications: Problem Statement for Launch Vehicles  
Patrick Farfal. **EADS SPACE TRANSPORTATION (France)**

## **13:00-14:00 LUNCH BREAK**

Fiber Optics in Space Missions: The experience from Japan  
**Yoshinori Arimoto - NICT (Japan)**

Fiber Optic Sensor System Demonstrator in PROBA II satellite  
Roman Cruzelecky-**MPB Communications (Canada)**

## **15:00 DISCUSSION**

Opening with input on CSA interest in Fiber Optic technologies  
Darius Nikanpour-**CSA (Canada)**

## **18:00 END OF THE DAY**

**Dinner in Leiden**