Dear Madam, dear Sir,

You are hereby warmly invited to attend the **Straylight Workshop** in Toulouse on November 14-15th, 2017.

1. **SCOPE & AIMS**

Space instruments are more and more demanding on both image quality and radiometric accuracy. This requires reducing stray light, by careful design and manufacturing and, when needed, calibration. Stray light includes scatter by optics and structures, ghost reflections, unwanted diffraction orders etc.

Dealing with stray light involves a number of technics: efficient and versatile black coatings; fine modeling with dedicated software; scatter and contamination assessment; and, last but not least, experience return. The present workshop shall cover recent advances in all these fields.

The present workshop is organized by the Optics and Opto-electronics CCT (Centre for Technical Competence) [http://cct.cnes.fr/content/optique-et-optoelectronique](http://cct.cnes.fr/content/optique-et-optoelectronique). The technical committee includes CNES, ESA, AIRBUS Defence & Space, SODERN and THALES ALENIA SPACE. We wish to gather the scientific and industrial communities involved in stray light, both in Europe and worldwide, in order to share their recent developments, assess the state of the art and identify future needs.

2. **PRACTICAL INFORMATION**

- **Workshop information**: [http://cct.cnes.fr/content/cct-ooe-20171114-stray-light](http://cct.cnes.fr/content/cct-ooe-20171114-stray-light)
- **Registration fees**: € 30, free for contributors. Pay online at the registration link.
- **Registration deadline**: October 31st, 2017.
- **Language**: English
- **Any question?** Write to: CCT-Straylight-Workshop@cnes.fr
- **Location**: CLS facility, close to CNES Toulouse, France
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3. SCHEDULE :

Tuesday November 14th

09:00-09:20 Welcome
Introduction to Workshop

Session 1 : « Straylight technologies »

09:30-09:45 Development of an optical coating for space application
G. Sierra, MAP

09:45-10:00 Vane-free star trackers and telescopes – New light-absorbing material for grazing angles
A. Yevtushenko, Acktar-IOF

10:00-10:15 Vertically aligned carbon nanotubes super-black coatings
T. Goislard, Nawa Technologies

10:15-10:30 Vantablack S-VIS/S-IR – Stray light suppression coatings from UV-FIR
O. Crossley, Surrey Nanosystems

10:30-10:45 CVD of carbon-based composite coatings for stray light reduction
N. Bhalawane, LIST

10:45-11:15 Coffee break

11:15-11:35 Absorbing coating in Magnetron sputtering for parasitic light reduction
H. Krol, CILAS

11:35-11:55 Straylight-optimized low-loss interference filter coatings made by plasma-assisted reactive magnetron sputtering (PARMS) for high performance multispectral imaging
M. Lappschies, Optics Balzers

11:55-12:15 Light Scattering from Optical Components for Space Applications
M. Trost, IOF

12:15-12:35 Scattering from reflective diffraction gratings : the challenges of measurements
M. Kronenberger, OHB

12:35-12:55 Characterization of diffraction gratings scattering in UV and IR for space applications
Q. Kupperman, Light Tech

13:00-14:00 Buffet Lunch

Session 2 : « Straylight in instruments»

14:00-14:20 Parasitic light scattered by optical components: Numerical prediction and accurate metrology
M. Zerrad, Institut Fresnel

14:20-14:40 The FCI on board MTG : design optimization related to stray-light needs
J. Ouaknine, TAS

14:40-15:00 LISA diffuse light
C. Nguyen, APS-IN2P3

15:00-15:20 Straylight analysis example using optical software
Q. Kupperman, Light Tech

15:20-15:50 Coffee break

15:50-16:10 New methods to mitigate under-sampling problems in stray light analysis
B. Michel, Hembach-photonik

16:10-16:30 Straylight analysis with Light tools
A. Pasquet, TAS

16:30-16:50 Stray light modelling of a coronagraph for operational space weather prediction
K. F. Middleton, RAL Space

16:50-17:10 Straylight computation on MTG-SSA: how far should we go to get satisfying results ?
F. Riguet, Safran-REOSC

17:10-17:30 The computation of occulter and baffle performance in coronographs and heliospheric imagers
J. Tappin, RAL space

Poster/demo session + cocktail

Poster Straylight design process as it usually applied when designing star trackers
E. Martaud, SODERN

Poster Straylight on OLCI camera
F. Laurent, TAS

Poster Design of a non-rotationally symmetrical vacuum-UV stray-light rejection system
L. Clermont, CSL

Poster On-ground contamination control for optical payloads
M. Marcon, TAS
Session 3: « Straylight measurement and correction »

09:10-09:30  In flight straylight detection and correction  
            L. Gross-colzy, Capgemini

09:30-09:50  Straylight in SENTINEL 4  
            J. Irizar, ADS

09:50-10:10  Straylight in the design of the Sentinel 5 UV2VIS imaging spectrometer  
            G. Dubroca, SODERN

10:10-10:30  Straylight measurements in Symbio-Sys instrument : setup and results  
            Y. Longval, IAS

10:30-11:00  Coffee break

Session 4: « Contamination issues »

11:00-11:20  Particulate contamination size distribution on optical systems evaluation  
            S. Dagras, ADS

11:20-11:40  Stray-light characterization and correction in the METOP-SG 3MI instrument  
            L. Clermont, CSL

11:40-12:00  Sun stray-light correction in the images of the Flexible Combined Imager on Meteosat Third Generation  
            E. Hache, TAS

12:00-12:20  VENUS straylight calibration and correction  
            P. Gamet, CNES

12:20-12:40  GAIA Stray Light Performance in Orbit  
            M. Erdmann, ESA

12:40-14:00  Buffet lunch + poster/demo session

Session 4: « Contamination issues »

14:00-14:20  Contamination issues in space instruments  
            D. Faye, CNES

14:20-14:40  Modeling of in-orbit molecular contamination  
            G. Rioland, CNES

14:40-15:00  EUV light scattering characterization of optical components by chemical contamination  
            Z. Zhang /P. Etcheto, IAS/CNES

15:00-15:20  Conclusion - End of Workshop

4. CONTACTS

For further information, you may contact any of the technical committee:

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