

Stray light workshop

Toulouse, November 14-15th 2017

CALL FOR REGISTRATION

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-optoélectronique>. 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>
- **Registration** : <http://stray-light.evenium.net>
- **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		
09:20-09:30			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 coronagraphs 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		

Wednesday November 15th

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. Dagrás, ADS
Session 3 : « Straylight measurement and correction »		
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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