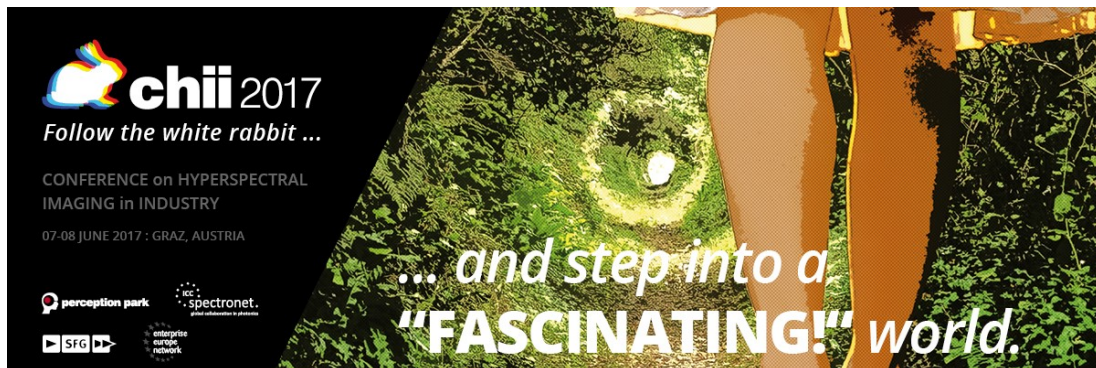


Dear Clusterpartners and Friends,

with this e-mail YOU get the latest content within the SpectroNet Academy as well as information about upcoming events which are tackling our collaborative work.

Special Announcement



Conference on Hyperspectral Imaging in Industry 2017 (CHII2017)
07.06.-08.06.2017, Graz, Austria

2 Days, 34 Presentations, Exhibitions, Pre-planned Meetings,
1 Evening Event, 5 Trainings and 1 Workshop

www.chii2017.com

Upcoming Events



Sensor+Test 2017

30.05.-01.06.2017, Nürnberg, Germany

Link: www.sensor-test.de



Conference on Hyperspectral Imaging in Industry 2017 (CHII2017)

07.06.-08.06.2017, Graz, Austria

Link: www.chii2017.com



65. Heidelberger Bildverarbeitung Forum

04.07.2017, Mannheim, Germany

Link: <http://bv-forum.de/65-bildverarbeitungsforum.html>



Joint IMEKO TC1-TC7-TC13 Symposium

31.07.-03.08.2017, Rio De Janeiro, Brazil

Link: imeko-tc7-rio.org.br



SpectroNet Collaboration Conference 2017, Jena

30.08.-31.08.2017, Jena, Germany

Link: www.spectronet.de



2nd European Machine Vision Forum

06.09.-08.09-2017, Vienna, Austria

Link: <http://emva-forum.org>

New Content within the SpectroNet Academy

Presentations, Pictures and Videos



[Optical Characterization of Materials,](#)

[22.03.-23.03.2017, Karlsruhe](#)



[OCM-SpectroNet Collaboration Conference,](#)

[21.03.2017, Karlsruhe](#)



[Bildverarbeitung in Produktion und Automation,](#)

[08.03.-09.03.2017, Ludwigsburg](#)



[SPIE Photonics West 2017,](#)

[31.01.-02.02.2017, San Francisco](#)



[Electronic Imaging 2017,](#)

[29.01.-02.02.2017, San Francisco](#)




[SPIE BiOS Expo 2017,](#)

[28.01.-29.01.2017, San Francisco](#)

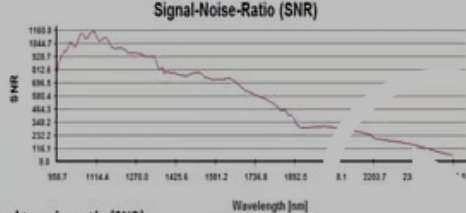


Featured Video




Signal to noise ratio (SNR) and Noise Equivalent Radiance (NER)

SNR curve: Signal to noise ratio as a function of wavelength for a given input spectrum and integration time.





Signal to noise ratio (SNR):

- A high SNR is essential in all scientific applications of hyperspectral imaging systems.
- While defining and measuring SNR in principle is trivial, it is not very informative (or at least not sufficient) to simply state that a sensor has an SNR of e.g. 1100 without providing additional information about the conditions for this measurement
- The SNR will always vary with wavelength due to spectral variations in sensor response, coatings and grating efficiency, etc.
- As a consequence, SNR should always be specified as a function of wavelength.
- The SNR curve should further be accompanied by the input radiance curve and information about the integration time used for measuring the SNR, as well as information about spatial or spectral binning or averaging factors used to calculate the given SNR function.



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Key quality parameters in hyperspectral imaging systems

Trond Løke - Norsk Elektro Optikk AS

Content:

Spatial Resolution

Spectral misregistration (smile effect)

Spatial misregistration (keystone effect)

How will keystone affect your processing results

Stray light characterization

Noise Equivalent Radiance (NER)

All videos from the past CHII2016

can be found within our SpectroNet Video Academy

see: <https://vimeo.com/album/4016049>

Further videos about Photonical Measurement Engineering and Quality Assurance

can be found within our SpectroNet Video Academy

see: <https://vimeo.com/spectronet>

With best regards

Yours



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