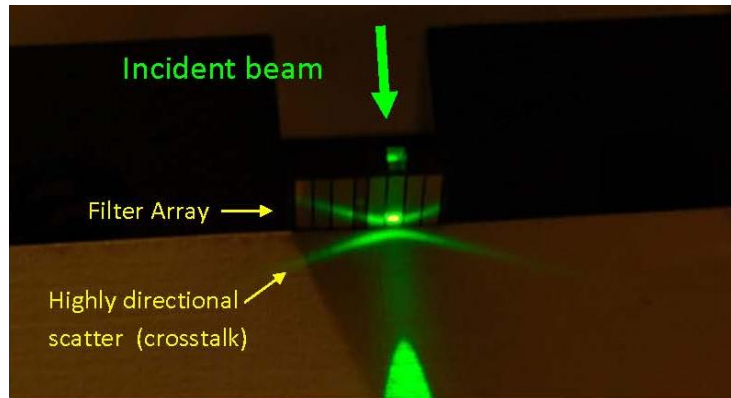


Angle Resolved Scattering from Optical Filters for Space Applications

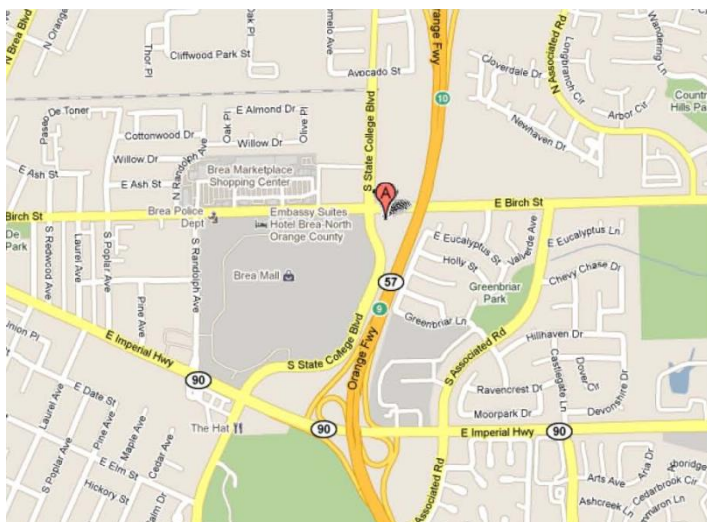
Peter Fuqua, The Aerospace Corporation

Multi-spectral imaging systems commonly use edge-bonded filter arrays (also called butcher-blocks) for spectral selection. These arrays are built from small filter "sticks" that are diced from coated substrates and then bonded together. Depending on substrate preparation and deposition conditions, some filters exhibit Angle Resolved Scattering (ARS) that leads to reduced out-of-band rejection or optical crosstalk. Both effects can degrade system performance. This talk will present a case study of how ARS contributed to optical cross-talk in an imaging payload and how design choices and materials processing parameters contribute to the magnitude of optical cross talk.



Angle Resolved Scatter from a "butcher-block" style edge-bonded filter array.

About our speaker: **Peter Fuqua** is a Senior Scientist in the Space Materials Laboratory at The Aerospace Corporation in El Segundo, CA. He has supported numerous space programs and is the author of over 50 papers on topics including scatter in coatings, silver mirror durability, space environmental effects, nanosatellite propulsion, and nonlinear optical materials. Dr. Fuqua has been awarded 6 patents.



Wednesday, April 13, 2011

Reception: 6:00; Dinner: 7:00; Talk: 8:00

Meal: Buffet Style

Cost: \$20.00 (OSSC Student Members are Free!)

Osaka Seafood Buffet

200 South State College Blvd.

Brea, CA 92821

(714) 529 - 1998

On-line Registration: www.ossoc.org or

Contact: [Katherine St. John](mailto:Katherine.St.John@ossoc.org), OSSC Arrangements
Chair, Events@ossoc.org, 951 200-0147

Please Register by April 11, 2011

Please post this notice and invite your friends & colleagues to attend!