

Instructors

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Seminar class, no formal lectures, no exams, no letter grade, GNSS field survey in March
Friday 1:00-3:00 PM, Munk Conference Room
class@ucsd.edu

OBJECTIVES: The objectives of this seminar course are to learn the basics of InSAR and GNSS processing and applications. There will be one field trip (optional) to the North Shore section of the San Andreas fault to perform a GNSS survey across the fault.

SYLLABUS

Date	Topic	Discussion Leader
10 JAN	InSAR Theory	Xu
17 JAN	InSAR Applications	Jin
24 JAN	GNSS Theory	Bock
31 JAN	GNSS Applications Bock and Melgar, 2016	Golriz
07 FEB	GNSS and InSAR integration, Klein et al., 2018	Xu
14 FEB	InSAR: Soil moisture and closure phase, De Zan et al., 2014	
21 FEB	InSAR: Adaptive multi-looking, Parizzi & Brcic, 2010 , InSAR Target statistics, Guarnieri et al., 2008	
28 FEB	GMTSAR Crash Course	Xu
06 MAR	GNSS: Water loading and GNSS, Fu et al., 2013	
13-15 MAR	North Shore GNSS Survey	Sandwell, Golriz, . .
20 MAR	Student Presentations	

SIO 239 SUGGESTED BOOKS:

Bracewell, Ronald Newbold, 1921-. The Fourier transform and its applications, [by] Ron Bracewell. New York, McGraw-Hill [1965] viii, 381 p. illus. 23 cm. Series title: McGraw-Hill electrical and electronic engineering series UCSD Scripps QA403.5 .B7

Bendat, Julius S.. Random data : analysis and measurement procedures /, Julius S. Bendat, Allan G. Piersol. 2nd ed., rev. and expanded. New York: Wiley, c1986. xvii, 566 p. UCSD Scripps TA340 .B43 1986

Curlander, John C.. Synthetic aperture radar : systems and signal processing /, John C. Curlander, Robert N. McDonough. New York : Wiley, c1991. xvii, 647 p. : ill. ; 24 cm. Series title: Wiley series in remote sensing Language: English UCSD S & E TK6592.S95 C87 1991

Elachi, C., Introduction to the Physics and Techniques of Remote Sensing, .New York: Wiley, c1987. xvii, 413 p.