SPEAKERS, TITLES, TIMES and LOCATIONS

Note: All plenary talks are held in Doheny Beach AB.

Plenary Talks

1 **Guillaume Bal,** *Inverse Problems with Internal Functionals*, Wednesday, 9:45–10:30.

2 **Gang Bao,** *Inverse Scattering Problems: Theory, Computation, and Applications*, Friday, 9:00–9:45.

3 **Liliana Borcea,** *Imaging in random media*, Friday, 9:45–10:30.

4 **Margaret Cheney,** *Radar Imaging*, Friday, 11:00–11:45.

5 **David Colton,** *Transmission Eigenvalues and Inverse Scattering Theory*, Thursday, 11:00–11:45.

6 **Allan Greenleaf,** *Can there be a general theory of Fourier integral operators?*, Thursday, 9:45–10:30.

7 **Colin Guillarmou,** *Semiclassical limits of plane wave and Eisenstein functions*, Tuesday, 9:45–10:30.

8 **David Isaacson,** *Problems that led me to Gunther Uhlmann*, Monday, 11:45–12:30.

9 **Carlos Kenig,** *Limiting Carleman weights and inverse problems*, Wednesday, 9:00–9:45.

10 **Matti Lassas,** *Cloaked wave amplifiers via transformation optics*, Tuesday, 9:00–9:45.

11 **Rafe Mazzeo,** *Singular Monge-Ampere equations in geometry*, Monday, 9:45–10:30.

12 **Joyce McLaughlin,** *Biomechanical Imaging of Tissue from Frequency Content Data*, Wednesday, 2:00–2:45.

13 **Richard Melrose,** *Adiabatic limits and eigenvalues*, Friday, 11:45–12:30.

14 **Lassi Paivarinta,** *Non-scattering energies and transmission eigenvalues*, Wednesday, 11:00–11:45.

15 **Mikko Salo,** *Geodesic ray transforms and tensor tomography*, Monday, 11:00–11:45.

16 **Fadil Santosa,** *Resonances of Low-loss Resonators*, Wednesday, 11:45–12:30.

17 **John Sylvester,** *Far Field Support for the Helmholtz Equation*, Thursday, 11:45–12:30.

18 **Jenn-Nan Wang,** *Size estimate problem for the shallow shell system*, Tuesday, 11:00–11:45.

19 **Steve Zelditch,** *Ergodicity and intersections of geodesics and nodal sets of eigenfunctions*, Thursday, 9:00–9:45.

20 **Ting Zhou,** *Quantitative thermo-acoustics and related problems.*, Tuesday, 11:45–12:30.

A Inverse Boundary Value Problems

Organizers: Rakesh and Mikko Salo

A.1 **Fioralba Cakoni,** *Nonlinear Integral Equations for Inverse Problems in Corrosion Detection from Partial Cauchy Data*, Monday, 2:30–3:00, Emerald Bay C.

A.2 **Boaz Haberman,** *Calderón's problem for low regularity conductivities*, Thursday, 4:00–4:30, Doheny Beach A.

A.3 **Yaroslav Kurylev,** *Inverse Problem of Electro-magneto-encephalography in the 3-shell Model*, Monday, 3:30–4:00, Emerald Bay C.

A.4 **Jennifer Mueller,** *A direct D-bar reconstruction algorithm for recovering a complex conductivity in 2-D*, Monday, 3:00–3:30, Emerald Bay C.

A.5 **Alberto Ruiz,** *Stability of Calderon problem with partial Data*, Thursday, 2:30–3:00, Doheny Beach A.

A.6 **Valeri Serov,** *Scattering solutions for the magnetic Schrödinger operator. Backscattering Born approximation*, Thursday, 3:30–4:00, Doheny Beach A.

A.7 **Leo Tzou,** *The Aharonov-Bohm Effect and the Calderón Problem for Connection Laplacians*, Thursday, 2:00–2:30, Doheny Beach A.

B Transformation Optics and Cloaking

Organizers: Ting Zhou and Matti Lassas

B.1 **Hoai-Minh Nguyen,** *Approximate cloaking using transformation optics and negative index materials*, Monday, 3:30–4:00, Emerald Bay B.

B.2 **Ulf Leonhardt,** *Perfect imaging with positive refraction*, Friday, 2:00–2:30, Doheny Beach A.

B.3 **Fernando Vasquez,** *Active Exterior Cloaking*, Monday, 2:30–3:00, Emerald Bay B.

B.4 **Graeme Milton,** *Cloaking for elasticity*, Monday, 3:00–3:30, Emerald Bay B.

B.5 **Hyundae Lee,** *Mathematical analysis of the anomalous localized resonance*, Friday, 3:30–4:00, Doheny Beach A.

B.6 **Yaroslav Kurylev,** *Manifolds of bounded geometry and stability of inverse problems*, Friday, 2:30–3:00, Doheny Beach A.

B.7 **Mikyoung Lim,** *Enhancement of near-cloaking using multilayer structures*, Friday, 4:00–4:30, Doheny Beach A.

C   Inverse Problems in Geometry

Organizers: Vladimir Sharafutdinov and Todd Quinto

C.1 **Eric Todd Quinto,** *The Microlocal Analysis of some curvilinear Radon transforms*, Tuesday, 2:00–2:30, Doheny Beach B.

C.2 **Yernat Assylbekov,** *Some integral geometry problems on Finsler and Riemannian surfaces*, Friday, 2:30–3:00, Doheny Beach B.

C.3 **Francois Monard,** *The inverse conductivity problem with power densities in general dimension.*, Tuesday, 2:30–3:00, Doheny Beach B.

C.4 **Leonid Pestov,** *On determining a conformal euclidean metric by its copy*, Friday, 2:00–2:30, Doheny Beach B.

C.5 **Aleksander Denisiuk,** *On support theorems for the X-Ray transform with incomplete data*, Tuesday, 4:00–4:30, Doheny Beach B.

C.6 **Alexandre Jollivet,** *Inverse scattering in classical mechanics*, Friday, 3:30–4:00, Doheny Beach B.

C.7 **Clayton Shonkwiler,** *The Dirichlet-to-Neumann map for differential forms*, Tuesday, 3:30–4:00, Doheny Beach B.

C.8 **Katya Krupchyk,** *Inverse boundary problems for magnetic Schrödinger operators with continuous magnetic potentials.*, Friday, 4:00–4:30, Doheny Beach B.

D   Hybrid Methods (Multi-Physics, Multi-Wave) in Medical Imaging

Organizers: Guillaume Bal and Shari Moskow

D.1 **Sebastian Imperiale,** *Reconstruction of coefficients in elliptic equations from knowledge of their solutions : Scalar and elastic cases.*, Wednesday, 4:30–5:00, Emerald Bay B.

D.2 **Chenxi Guo,** *Linearized internal functionals for anisotropic conductivities*, Wednesday, 5:00–5:30, Emerald Bay B.

D.3 **Leonid Kunyansky,** *A mathematical model and inversion procedure for Magneto-Acousto-Electric Tomography*, Tuesday, 2:00–2:30, Doheny Beach A.

D.4 **Shari Moskow,** *Local inversions in ultrasound modulated optical tomography*, Tuesday, 2:30–3:00, Doheny Beach A.

D.5 **Adrian Nachman,** *convergent algorithm for the hybrid problem of reconstructing conductivity from minimal interior data*, Wednesday, 3:00–3:30, Emerald Bay B.

D.6 **Kui Ren,** *Uncertainties in quantitative photoacoustic tomography*, Tuesday, 3:30–4:00, Doheny Beach A.

D.7 **Alex Tamasan,** *Conductivity imaging via some minimum weighted total variation problems*, Wednesday, 3:30–4:00, Emerald Bay B.

D.8 **Faouzi Triki,** *Vibration potential tomography*, Tuesday, 4:00–4:30, Doheny Beach A.

E Microlocal Methods

Organizers: Allan Greenleaf and Raluca Felea

E.1 **Andras Vasy,** *Diffraction from conormal singularities*, Wednesday, 3:00–3:30, Emerald Bay C.

E.2 **Melissa Tacy,** *L^p eigenfunction estimates and directional oscillation*, Wednesday, 4:30–5:00, Emerald Bay C.

E.3 **Kiril Datchev,** *Fractal Weyl laws for asymptotically hyperbolic manifolds*, Wednesday, 3:30–4:00, Emerald Bay C.

E.4 **Hamid Hezari,** *Wave invariants and inverse spectral problems*, Thursday, 2:30–3:00, Doheny Beach B.

E.5 **Dean Baskin,** *Asymptotics of radiation fields in asymptotically Minkowski space*, Thursday, 2:00–2:30, Doheny Beach B.

E.6 **Matti Lassas/Lauri Oksanen,** *An inverse problem for the wave equation with disjoint sources and receivers*, Wednesday, 5:00–5:30, Emerald Bay C.

E.7 **Cliff Nolan,** *Microlocal analysis of radar imaging of a dynamic reflectivity function*, Thursday, 3:30–4:00, Doheny Beach B.

E.8 **Carlos Montalto,** *Stable determination of a simple metric, a covector field and a potencial from the hyperbolic Dirichlet-to-Neumann map*, Thursday, 4:00–4:30, Doheny Beach B.