



Physics

PDE

Geometry

Algebra

Analysis

# Physics

**Hamiltonian/Lagrangian**  
Conservation Structure  
Virial, Minimal Objects  
Morawetz  
Multiparticle?  
Scattering; Blowup

**dynamical systems**  
KAM; Arnold Diffusion  
Nekoroshev Stability  
WT, Invariant Measures

**Dynamics**  
LWP, GWP, Blowup  
Long-time behavior  
Almost Sure?  
Compact Attractors?

**Field Equations**  
\* Waves; QM  
\* Fluids  
\* Plasma; E&M

**Integrable Systems**  
KdV, NLS, Lax Pair,  
Cubic Szego? Dynamics

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**GPDE**  
\* GR, YM, QFT  
\* Ricci  
\* Harmonic Maps  
\* Wave Maps

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Microlocal Analysis

Harmonic Analysis

Geom. Meas. Theory

**Regularity**  
Elliptic, Parabolic  
Partial, Singularity

**Function Spaces**  
Multilinear Analysis  
Bilinear Estimates,  
Compactness Tools  
Profile Decomposition  
FRT, Convolution, Curvature

Probability

Bootstraps  
Estimates

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algebraic geometry



representation theory

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linear PDE

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