

# Analysis of Partial Differential Equations using Dynamical Systems Techniques: A conference in honor of the 60th birthday of C. Eugene Wayne

**Boston University, June 1-3, 2016**

## Schedule

Time	Wednesday	Thursday	Friday
9:00	Jean-Pierre Eckmann	Vivi Rottschäfer	Bob Pego
10:00	Keith Promislow	David Ambrose	Rafael de la Llave
11:00	Coffee Break	Coffee Break	Coffee Break
11:30	Guido Schneider	Matt Holzer	Walter Craig
12:30	Lunch	Lunch	Lunch
2:00	Karsten Matthies	Krešimir Josić	Dario Bambusi
3:00	Livia Corsi	Miles Wheeler	David Uminsky
	Ting-Hao Hsu	Kelly McQuighan	
4:00	Coffee Break	Coffee Break	
4:30	Lee DeVille	Arthur Jaffe	
5:30	Break	Break	
6:00	Poster Session and Reception	Banquet	

**Location (see map next page):**

- All talks and coffee breaks: Photonics room 211, 8 St Mary's St. (Can enter on Babbit St.) The room will have both a blackboard and a projector. Details can be found at <http://www.bu.edu/classrooms/classroom/pho-211/>.
- Poster session: Math department room 148, 111 Cummington Mall
- Banquet: Scoozi, 580 Commonwealth Ave.
- Lunch: recommendations on map on next page

Nud Pob (Thai)

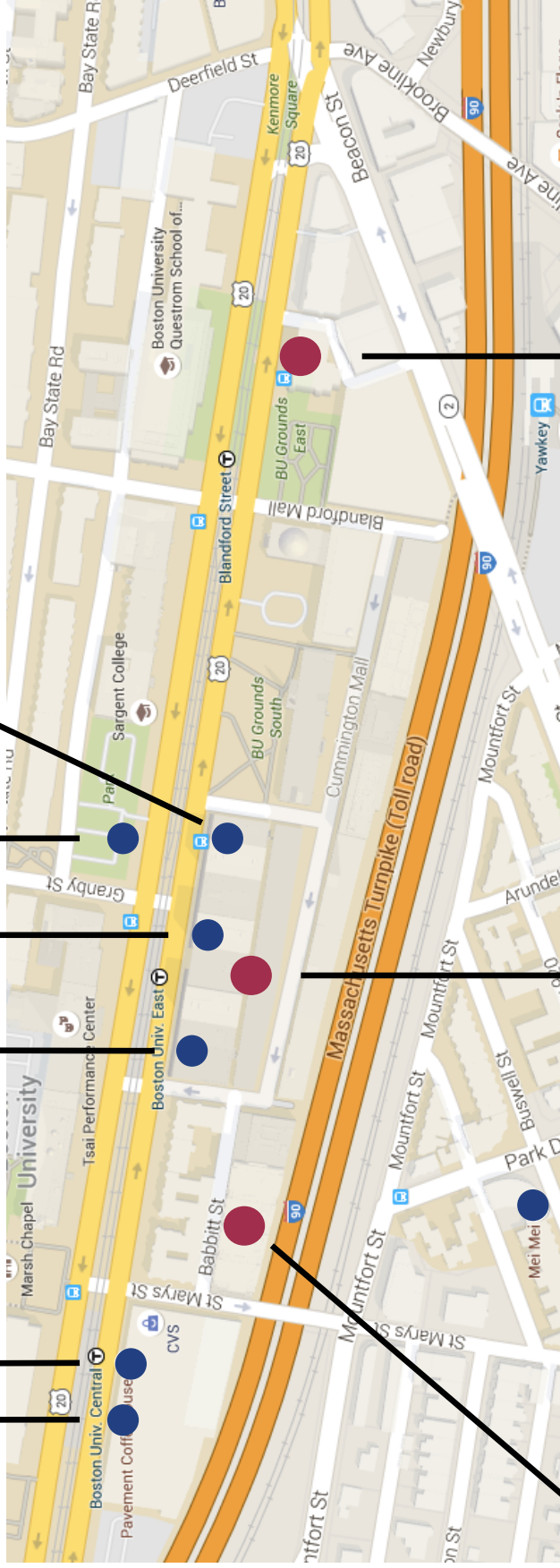
Pavement (coffee, sandwiches)

Subway, Convenience Store

Basho express (sushi, rice bowls)

Campus Trolley (Middle-Eastern wraps, salads)

Starbucks



Photonics Building

Math Department

Scoozi

Mei Mei (Chinese-American)

# Wednesday

## Talks

- Jean-Pierre Eckmann: “Hamiltonian Chains of Rotators, with added Dissipation: How fast does one converge to zero”
- Keith Promislow: “The dynamics of packing in chemical systems”
- Guido Schneider: “Validity and non-validity of amplitude equations for water wave problem like systems”
- Karsten Matthies: “Asymptotics and stability of solitary waves in the high-energy limit of FPU-type chains”
- Livia Corsi: “Blossoming resonant tori: mind the gaps”
- Ting-Hao Hsu: “Viscous singular shock profiles for some systems of conservation laws using geometric singular perturbation theory”
- Lee DeVille: “The Spectrum of Signed Laplacians, or: Feuds, Coalitions, and Love Triangles”

## Poster Session

The poster session will take place in the BU math department, at 111 Cummington Mall. It will coincide with a reception, where light food and drinks will be available. The presentations will be:

- Paul Carter: “Transonic canards and stellar wind”
- Veronica Ciocanel: “PDE Models of mRNA Localization in *Xenopus* (frog) egg cells”
- Timothy Faver: “Traveling Waves in Diatomic Fermi-Pasta-Ulam-Tsingou Lattices”
- Ryan Goh: “Pattern formation in the wake of external mechanisms”
- Kevin O’Keeffe: “Swarming Oscillators”
- Shasha Liao: “Nonlinear Modulational Instability of Dispersive PDE Models”
- Ashish Pandey: “Modulational instability in a full-dispersion shallow water model”
- Benjamin Ponedel: “Forced Snaking”
- Shuxia Tang: “Asymptotic stability of a KdV equation with a 2-dim center manifold”
- Dario Valdebenito: “Quasiperiodic solutions to elliptic equations in  $\mathbb{R}^d$ ”
- Alexandria Volkening: “Agent-based models of zebrafish stripes”
- Chi-Ru Yang: “Birkhoff normal form for null form wave equations”
- Xiaoxia “Jessica” Xie: “Two types of nonlocal diffusions and the convergence to the random/normal diffusion”

# Thursday

## Talks

- Vivi Rottschäfer: “Patterns and coherence resonance in the stochastic Swift-Hohenberg equation with Pyragas control”
- David Ambrose: “On vortex sheets and mean field games”
- Matt Holzer: “Linear spreading speeds from nonlinear resonant interaction”
- Kresimir Josić: “Evidence accumulation in changing environments”
- Miles Wheeler: “Stratified solitary water waves”
- Kelly McQuighan: “Towards metastability in the Burgers equation with periodic boundary conditions”
- Arthur Jaffe: “Truth and Beauty in Physics and Mathematics”

## Banquet

The dinner banquet will take place at the restaurant Scoози, at 580 Commonwealth Avenue, which is about a ten minute walk from the Photonics building. Appetizers will be served at 6pm, with a buffet dinner to follow around 7pm. A cash bar will be available throughout.

# Friday

## Talks

- Bob Pego: “Euler sprays and optimal transportation”
- Rafael de la Llave: “An a-posteriori KAM theorem for whiskered tori in PDE”
- Walter Craig: “Vortex filament dynamics”
- Dario Bambusi: “Reducibility of time dependent quantum systems with unbounded perturbation”
- David Uminsky: “Pattern formation in large particle systems”