MAT 342

Applied Complex Analysis

Lecturer: Mikhail Lyubich
Grader: Lilya Lyubich

We plan to cover basics of Complex Analysis and its various applications (including Potential Theory, Fluid Dynamics, and Quantum Mechanics). Though the development will be quite rigorous, formal proofs will not be our main emphasis. We will rather try to develop an appreciation of the new perspective, conceptual and technical, that this beautiful area of mathematics opens up.


Textbook:

The final grade will be based upon HW (25%), Midterm (35%) and the Final (40%).

Homeworks:
HW1 (due on Wed Sept 5) p. 7, # 1 (a), p. 13, # 5, 6, p. 16, # 13, p. 23, # 1, 4, 10, p. 30, # 1, 2, 6.
HW2 (due on Wed Sept 12) p. 43, # 2(b), 3, 5, 8; p. 61, # 2,4; p. 71, # 1 (c,d), 3(b,c); p. 76, # 1 (b,c), 2(a,c).

Office hours: M. Lyubich: room 3-110 of the Math tower,
Mon 11am–12:30pm and Thu 2:00–3:30pm.
L. Lyubich: Tu 1:00-2:00pm (MLC)
and Wed 11am–noon (room 3-110).

Midterm: Wed March 17 during the class