Endpoint Boundary Value Problems for Singular Schrödinger Equations

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Pijcopia initiative

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MY RESEARCH (IN 50 WORDS OR LESS)

My research is about investigating well-posedness of certain boundary value problems for Schrödinger-type PDEs with rough coefficients and singular potential on a upper half space, when the boundary data lies in certain "endpoint" function spaces.

I use harmonic analysis techniques to extrapolate certain solution estimates to "endpoint-type" data.

KEY THEMES/ TOPICS/ SKILLS

- Partial Differential Equations
- Functional Calculus
- Atomic Decompositions
- Harmonic Analysis
- Operator-Adapted Spaces
- Resolvent Estimates

THE BEST PART

- I spend my time learning interesting new things.
- I get to work in a friendly and motivating environment.
- I get along very well with my supervisor.
- I can attend seminars and meet people who are leaders in my field of research.
- I am potentially doing things no one has done before.

THE WORST PART

- Few people understand (or care about) what I'm doing.
- GRS2 form
- It can be frustrating to get stuck on a problem

AN IMAGE TO REPRESENT MY RESEARCH

Splittings and identifications of some operator-adapted Hardy-Sobolev spaces. Each arrow indicates a bijection that is bounded from below and above for the respective quasinorms.