I am interested in infinitary combinatorics and forcing, and their applications to Topology and Analysis. Below I describe what I am studying now.

In [2] N. Weaver discussed some set theoretic problems about the *Calkin algebra* and one of them was Hadwin's conjecture. In [1] D. Hadwin showed that under CH all maximal chains in $\mathcal{P}$ – the lattice of projections in the Calkin algebra, $\mathcal{C}$ – are order isomorphic, and conjectured that it is equivalent to CH. In [3] E. Wofsey introduces an analogy between $\mathcal{C}$, and, $P(\omega)/fin$ and shows that " there exists non-isomorphic maximal chains in $\mathcal{P}$ " is consistent with ZFC.

At the moment I am a master student at University of Tehran . In my master thesis I will go through the theorems in [3] and I will try to work on Hadwin's conjecture.

References

[1] D. Hadwin, maximal nests in the Calkin algebra, Proc. Amer. Math. soc. **126** (1998), 1109–1113
[2] N. Weaver, Set Theory and C*−algebras, Bull. Symb. Logic **13** (2007), 1–20
[3] E. Wofsey P$(\omega)/fin$ and projections in the Calkin algebra, Proc. Amer. Math. Soc. **136** (2008), no. 2, 719–726

Email: hlramandi@gmail.com