YAIR HARTMAN

I'm mostly interested in the study of "**stationary dynamical systems**", that is, the study of actions $G \curvearrowright (X, \nu)$ where (X, ν) is a probability space, and the measure ν is not invariant, but invariant on the average. More precisely, there is a measure μ on G (or: a G-random walk) such that $\int (g_* \nu) \, d\mu(g) = \nu$. The most important example of such an action is the action of G on its **Furstenberg-Poisson boundary**, which takes the group geometry into account.

Among other questions, I enjoy to think and work on the following:

- The possible **Furstenberg-entropy** values of a given group with a measure, a study which called the "Furstenberg entropy realization problem".
- Looking for a "structure theorem" for stationary actions, such as Nevo-Zimmer's and Bader-Shalom's **Intermediate Factor Theorems** (IFTs).
- Lately, together with Omer Tamuz, we show that the existence of an IFT implies a rigidity on the **Invariant Random Subgroups** that the group admits. I'll discuss this work in some afternoon talk in Ventotene.