**Understanding Climate Variability of Urban Ecosystems through the Lens of Citizen Science**

**MOTIVATION**
- Urban temperatures are increasing through a combination of regional and global drivers.
- Cities are increasingly looking for opportunities to reduce peak temperatures.
- Fine-scale variation in urban climate may have a large influence on urban heat impacts.
- Harnessing citizen science, land-atmosphere models, and satellite observations may provide opportunities to assess fine-scale climate variation and heat mitigation impacts.

**CITIZEN SCIENTIST-DRIVEN RESEARCH**

**What is the effect of our low-water use landscaping on neighborhood temperatures?**

**MEASUREMENTS USING SATELLITE**

**How can satellite measurements be incorporated?**

**CONCLUSIONS**
- Citizen science enables many opportunities for enhancing satellite observations in urban regions.
- Urban climates exhibit large variation in climate at neighborhood scales.
- Regional climate models can provide insights to fine-scale urban temperature distributions.
- Satellite data complements in-situ and modeling approaches by providing insight into localized temporal and spatial temperature variation.

**ADVANCING URBAN CLIMATE SCIENCE**

**How well does WRF-modeling predict neighborhood microclimate?**

**FUNDING**

25 Additional community partner organizations throughout the greater Los Angeles, CA area.