Two weeks ago, my family vacation took us past the self-proclaimed "world's largest thermometer," in Baker, California, which read 111 degrees when we visited it-the hottest air temperature my kids had ever felt. Back at UCLA we're feeling the heat today, too, with much of the LA basin <u>scorching in record temperatures</u>. L.A.'s heat wave is just one of many <u>gripping the globe right now</u>, with records being set from the Middle East to northern Europe to Canada to the eastern and now western U.S.

Today's aberrant temperatures won't be unusual for long. For a scary glimpse into the nottoo-distant future in southern California, check out my colleague Dr. Alex Hall's groundbreaking research (covered well in the LA Times and other outlets) into future L.A. temps under climate change scenarios. He is one of the most sophisticated "downscalers" of climate modeling in the world, which means he is able to tell us, neighborhood by neighborhood, just how hot it will likely get in L.A. over the coming decades, because of climate change. For example, by the end of this century L.A. could see **54 days per year** above 95 degrees, up from an average of 6 days/year in recent decades. Yikes. Coastal areas will face fewer extreme heat days, but look out in the Valley.

This is a serious public health concern. It affects water supply, wildfire risk, power reliability, disease vectors, and air quality. Heat waves also kill people directly, especially heat waves that fall relatively early in a summer season. In Quebec, <u>more than 30 people</u> are reported dead in this week's heat, most of them elderly. The worst heat waves kill <u>tens</u> <u>of thousands</u>.

What steps can we take to reduce these harms? Obviously we can and should begin to reduce our climate emissions. If you're in a hole, stop digging. Alex Hall's research shows a significant difference, at the end of this century, between the heat L.A. neighborhoods will regularly endure under mitigation and business-as-usual scenarios. There are also steps we can take to make our neighborhoods more resilient in the face of higher temperatures, and Los Angeles is starting to take those steps. My favorite projects involve cool roofs and cool pavements, which work by reflecting heat away from buildings and other surfaces to keep neighborhood temperatures down. Check out <u>Climate Resolve's great work on this issue</u> if you haven't already seen it. Many years ago, some students and I researched the potential for cool roofs to benefit L.A., and it's gratifying to see L.A.'s pioneering <u>cool roof ordinance</u> and other programs starting to make a difference. Check out this <u>Canoga Park cool</u> pavement project, for example. Working by degrees, we can take the worst of the edge off.