Abstract: This will be an introduction to a few topics in the representation theory of reductive Lie groups. I will give a few basic facts about infinite dimensional representations, then define a coherent family and the ‘coherent continuation representation’ of the Weyl group. I will explain a little where coherent families come from and (a little of) what they can tell us. There is an open question that I might say something about, but the talk is mostly expository.