Introduction outline

* Ezβ and Ezβ moments depend upon averages - though averages of different kinds - of residues in a β-barrel sstructure, or a group of β-barrel structures.
* Number of β-barrel structures is growing, but there are only 104 structures.
* Ezβ does not require fine-grained information - only z-coordinate, and a big average is taken, so it's fine if there's some noise. Ez-β moment is similarly insensitive - rough direction from center is enough.
* Existing methods - TMBPro, pretty sophisticated looking, tries to find correct itner-residue contacts. Naveed - a template-free method, apparently motivated by wanting to predict really novel structures
* Can a simple threading approach do it? Jacoboni et. al warn that the answer is no, because of low sequence identity *between families* - but if sequences that are probably of the same family are assembled, maybe that could do it.
* Threading: Finding a template, mapping onto the template.
* HHOMP - aggreagates sequences based upon hidden markov models somehow. Finding a template.
* Substitution matrices and sequence alignment - mapping onto a template.