



**Supplementary information, Figure S8** Superposition of the specific loop area from monomer A and B of the complex. Monomer A (green) is superposed to monomer B (blue) of FabZ-ACP complex. ACP  $\alpha 2$  helix is shown in magenta. All the residues involved in FabZ-ACP crashes are shown as sticks and labeled, including residues Lys129' and Ile132' on the FabZ loop, and residues Val40, Met44, Glu47 and Glu53 from holo-ACP. The distances between the residues involved in FabZ-ACP crashes are shown as yellow dashes, and labeled. Secondary structural elements are also labeled. **(A)** The crashes between Ile132' of FabZ with residues Val40 and Met44 of ACP. **(B)** The crashes between Lys129' of FabZ with residues Glu47, Glu53 and Ile54 of ACP.