Figures I made for a class

In one semester when I taught Math 125 (Linear Algebra for Business Students), I helped the course captain redo some of the order and presentation of topics, and also made the following figures to aid understanding of students for the topic of projections onto subspaces. (The labels are deliberately missing as we thought it would be instructive for the students to label it in class while the instructor is going over it.)

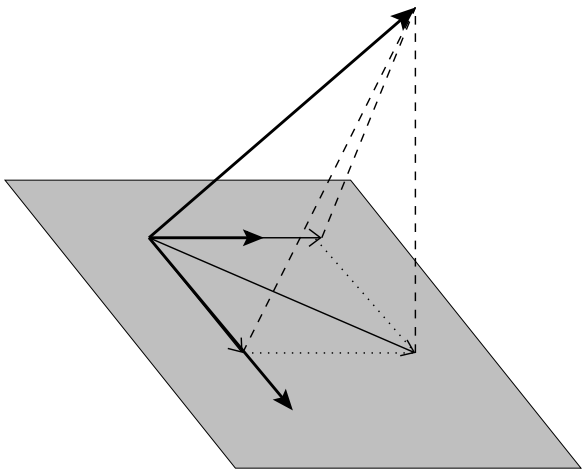

Figure 1: Projection of $\vec{u}$ onto the subspace $S = span\{\vec{v_1}, \vec{v_2}\}$

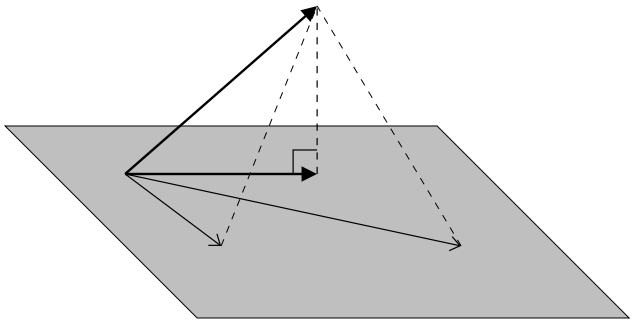

Figure 2: The projection of $\vec{u}$ onto the subspace S is the point in S closest to $\vec{u}$