Figure 26.26: Case (III): The left figure is the hyperplane representation of $\mathbb{RP}^2$ and a homography with fixed point P and invariant line Δ. The purple (linear) hyperplane maps to itself under rescaling; as such the restriction of the homography to Δ is the identity. The green (linear) hyperplane also is invariant under the homography, but the invariance is not given by the identity map.
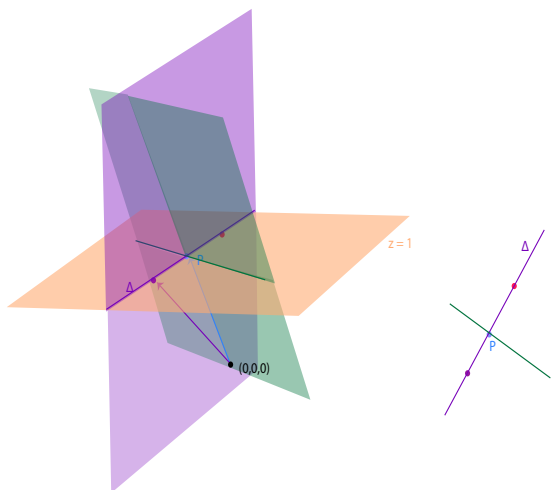

Figure 26.27: Case (IV): The left figure is the hyperplane representation of $\mathbb{RP}^2$ and a homography with fixed point P and invariant line Δ containing P. The purple (linear) hyperplane maps to itself under rescaling; as such the restriction of the homography to Δ is the identity. The green (linear) hyperplane also is invariant under the homography, but the invariance is not given by the identity map.