

The image is a placeholder for a figure, indicated by the text "path.png" in a monospaced font. The figure itself is not visible, only the label is present within a rectangular frame.

Figure 1: Parameter-space configuration showing that for all the axion couplings  $\lambda_r$  (cyan), the projections of the orthogonal couplings  $\lambda_r^\perp$  (fading cyan) on all potential couplings  $\gamma_i$  (teal) are non-negative. The minimal-distance vector  $\gamma_\infty$  (purple) from the origin to the potential convex hull (orange) is also shown. An orthogonal coordinate system is also shown to facilitate identifying right angles.