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## Dispersion theory methods for transition form factors: from $\omega/\phi \to \pi^0 \gamma^*$ to $e^+e^- \to \pi^0 \gamma$

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Dispersion theoretical analyses of transition form factors are stepping stones to a model-independent determination of the light-by-light scattering contribution to  $(g - 2)_{\mu}$ . We have performed such an analysis on the conversion decays of the lightest isoscalar vector

mesons,  $\omega/\phi \to \pi^0 \ell^+ \ell^-$ . For that we resort to a dispersive analysis of the  $V \to 3\pi$  partial-wave amplitude and the precisely constrained pion vector form factor as main ingredients. Extending the framework for the vector decays to incorporate the intermediate  $e + e - \to 3\pi$  we obtain a description of the  $\pi^0$  transition form factor measured in  $e^+e^- \to \pi^0\gamma$ .

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