1) The method used for the remainder of the proof is similar to that used in [2].

2) The amplitude f is connected with the width of the $\pi_{\mu 2}$ decay by the formula

$$\Gamma(\pi_{\mu 2}) = \frac{G^2 f^2 m_\pi}{4\pi} m_\mu^2 \left(1 - \frac{m_\mu^2}{m_\pi^2}\right)^2. \qquad (6)$$

The heavy lines in Fig. 2 correspond to the pions.

3) Similar reasoning can be used also to explain why the correct ratio of the decays $\omega^0 \to \pi^0\gamma$ and $\omega^0 \to \pi^+\pi^-\pi^0$ is obtained in (3).

CURRENT COMMUTATORS AND RADIATIVE DECAYS OF THE η MESON

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On the basis of the current commutators, the following relations are obtained between the probabilities of the radiative decays of pseudoscalar mesons:

$$\frac{w(\eta \to \pi^+\pi^-\gamma)}{w(\eta \to 2\gamma)} = 0.18$$

and

$$\frac{w(X \to \pi^+\pi^-\gamma)}{w(\eta \to 2\gamma)} = 5.$$

VORTEX ISOMERS OF NUCLEI

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If nuclear matter is a superfluid liquid, then a state corresponding to a drop of this liquid is possible, i.e., a nucleus with a quantized vortex [1] passing along the axis of the drop.

The circulation of the velocity along a contour surrounding the vortex, as is well known, equals $\hbar/m$, where m is the mass of the bosons making up the superfluid liquid. This means that each such boson makes a contribution equal to $\hbar$ to the angular momentum. Consequently the total angular momentum of the nucleus in the vortical state is equal to $n\hbar = z\hbar/2$. It is assumed that the role of the bosons, whose number equals n, is played by α particles.

Since the rotation is not similar to rotation with constant angular velocity ($\omega \sim 1/r^2$ in the presence of a vortex), the equilibrium shape of the drop has the form shown in Fig. 1, with a dip on the axis. The greatest interest attaches to the minimum energy E_m of the