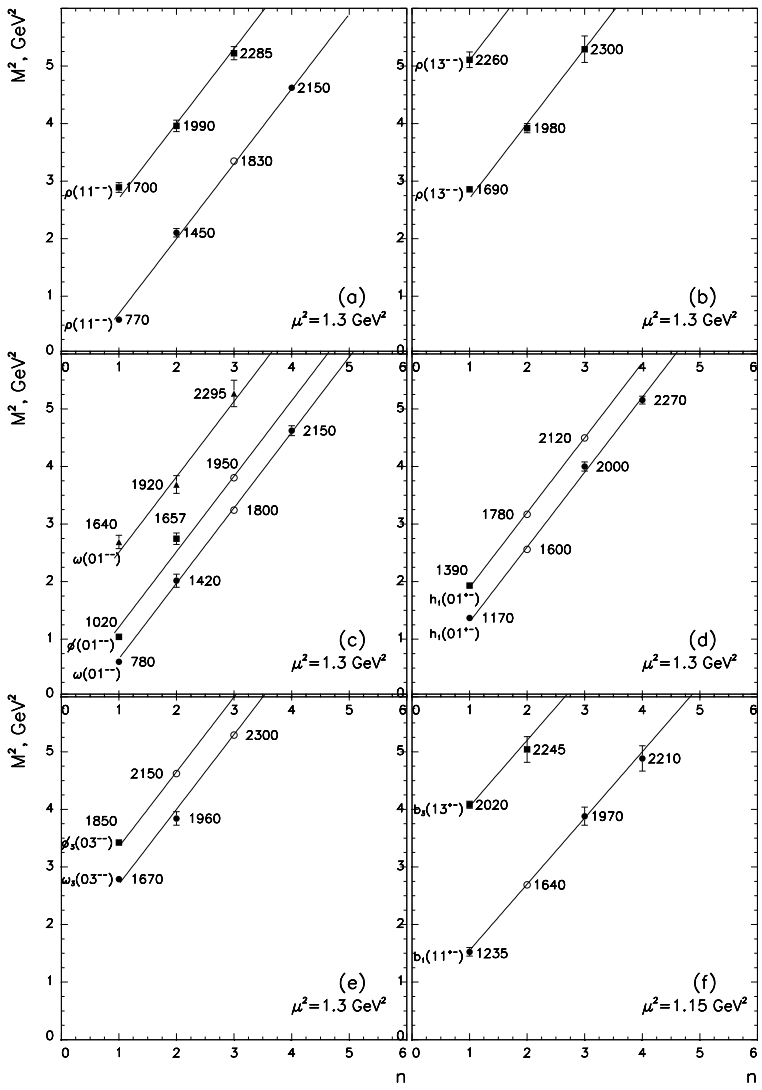

Figure 1: Trajectories on the (n, M^2) planes for the states with $(C = -)$. Open circles stand for the predicted states.

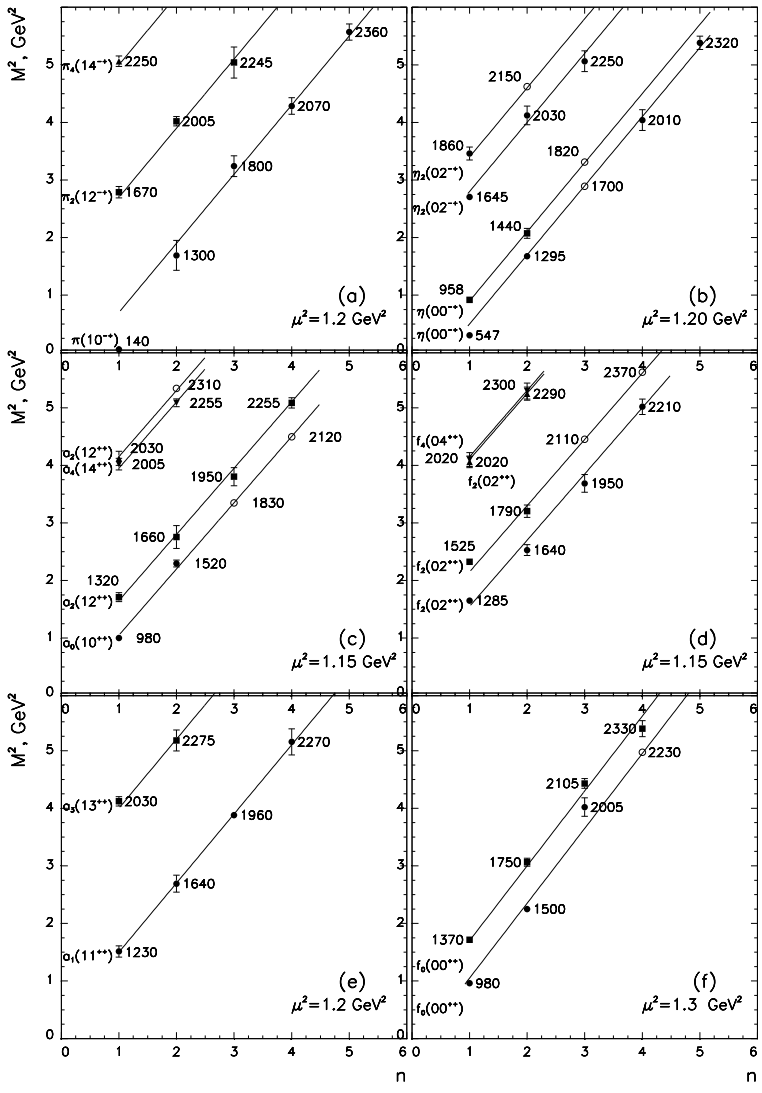

Figure 2: Trajectories on the (n, M^2) planes for the states with $(C = +)$.

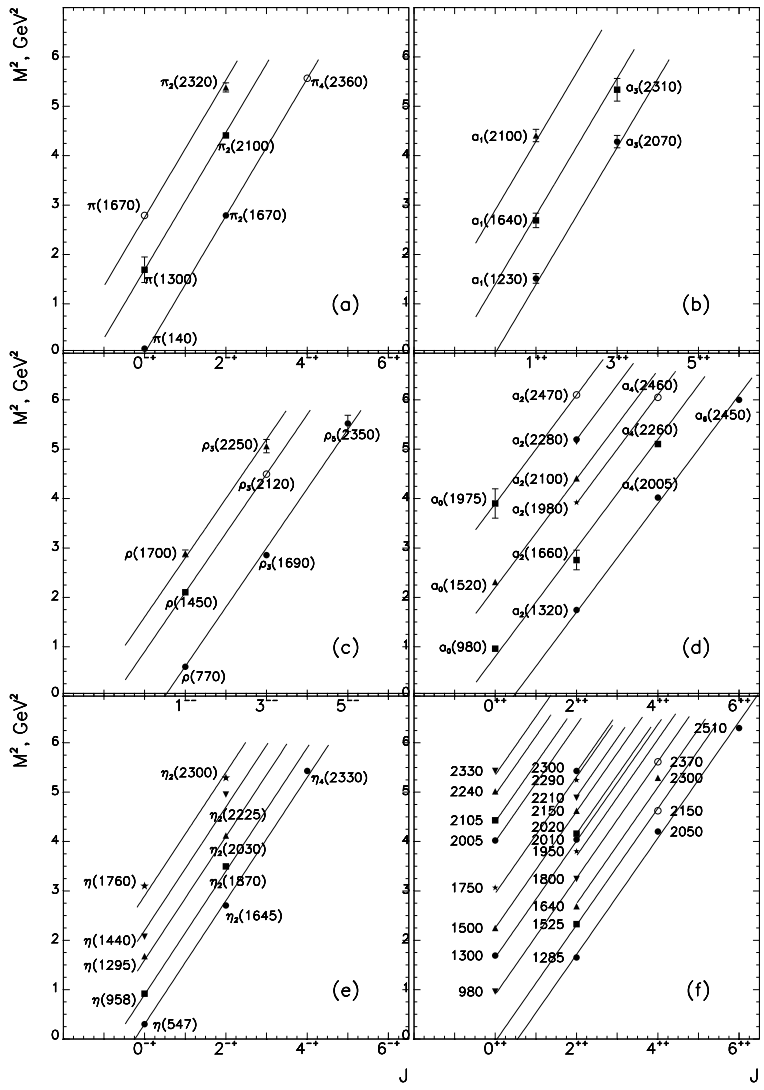

Figure 3: (J, M^2) planes for leading and daughter trajectories: a) π-trajectories, b) a_1-trajectories, c) ρ-trajectories, d) a_2-trajectories, e) η-trajectories, f) P'-trajectories.

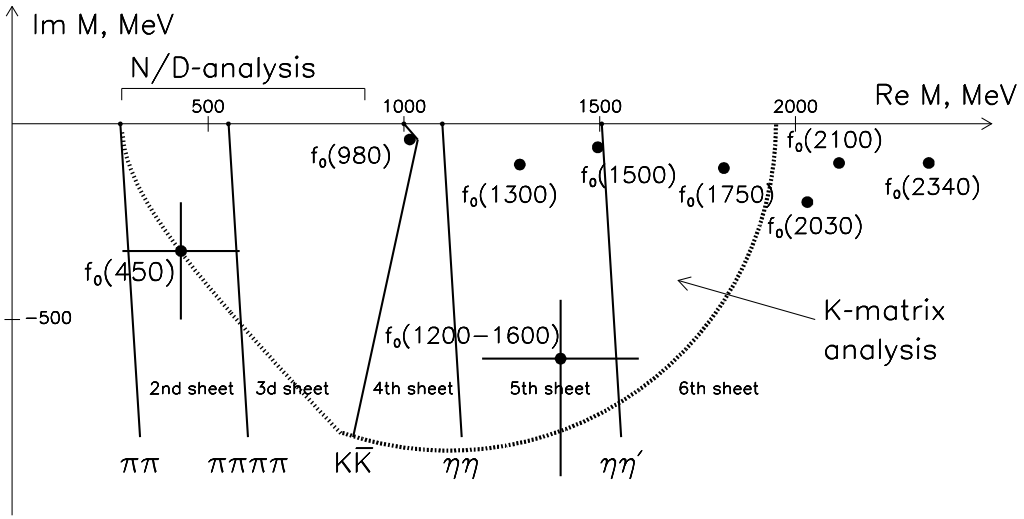

Figure 4: Complex M plane in the ($IJ^{PC} = 00^{++}$) sector. Dashed line encircle the part of the plane where the K-matrix analysis [8] reconstructs the analytic K-matrix amplitude: in this area the poles corresponding to resonances $f_0(980)$, $f_0(1300)$, $f_0(1500)$, $f_0(1750)$ and the broad state $f_0(1200-1600)$ are located. On the border of this area the light σ-meson denoted as $f_0(450)$ is shown (the position of pole corresponds to that found in the N/D method [31]). Beyond the K-matrix analysis area, there are resonances $f_0(2030), f_0(2100), f_0(2340)$ [6].

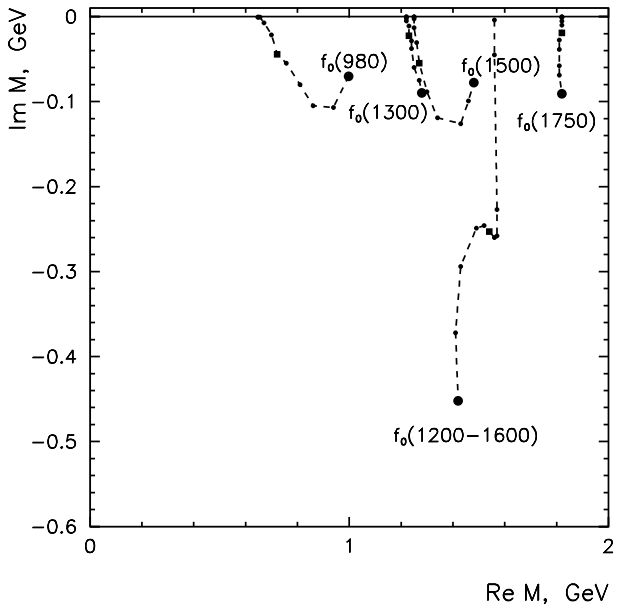

Figure 5: Complex M plane: trajectories of poles corresponding to the states $f_0(980)$, $f_0(1300)$, $f_0(1500)$, $f_0(1750)$, $f_0(1200-1600)$ within a uniform onset of the decay channels.

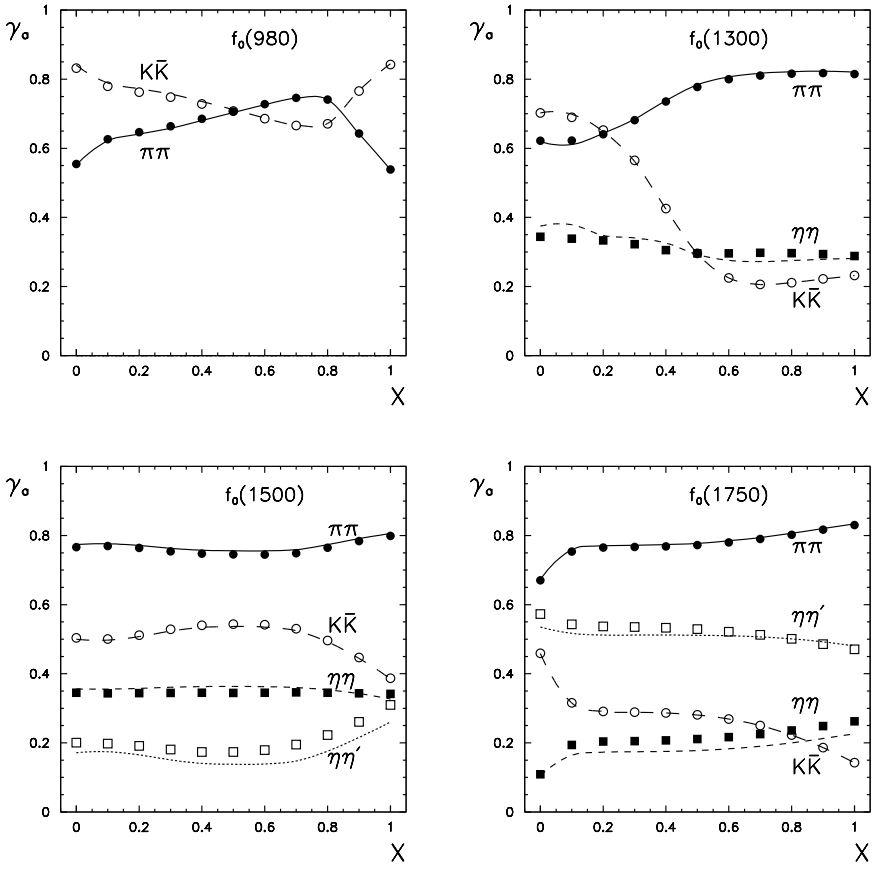

Figure 6: The evolution of normalized coupling constants $\gamma_a = g_a/\sqrt{\sum_b g_b^2}$ at the onset of the decay channels for $f_0(980)$, $f_0(1300)$, $f_0(1500)$, $f_0(1750)$. Curves demonstrate the description of constants by formula (38).

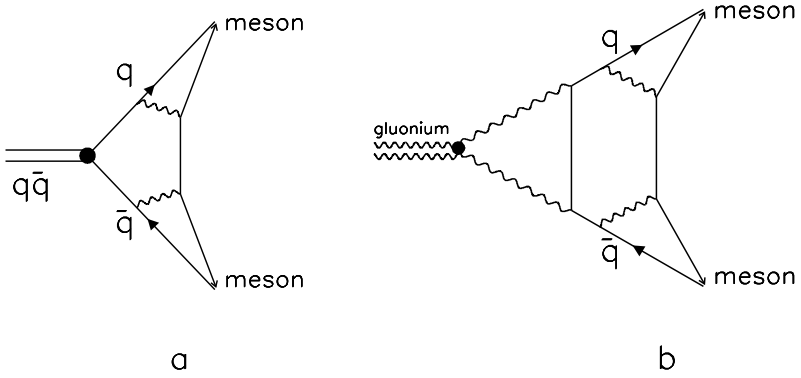

Figure 7: (a,b) Examples of planar diagrams responsible for the decay of the $q\bar{q}$-state and gluonium into two $q\bar{q}$-mesons (leading terms in the $1/N$ expansion).

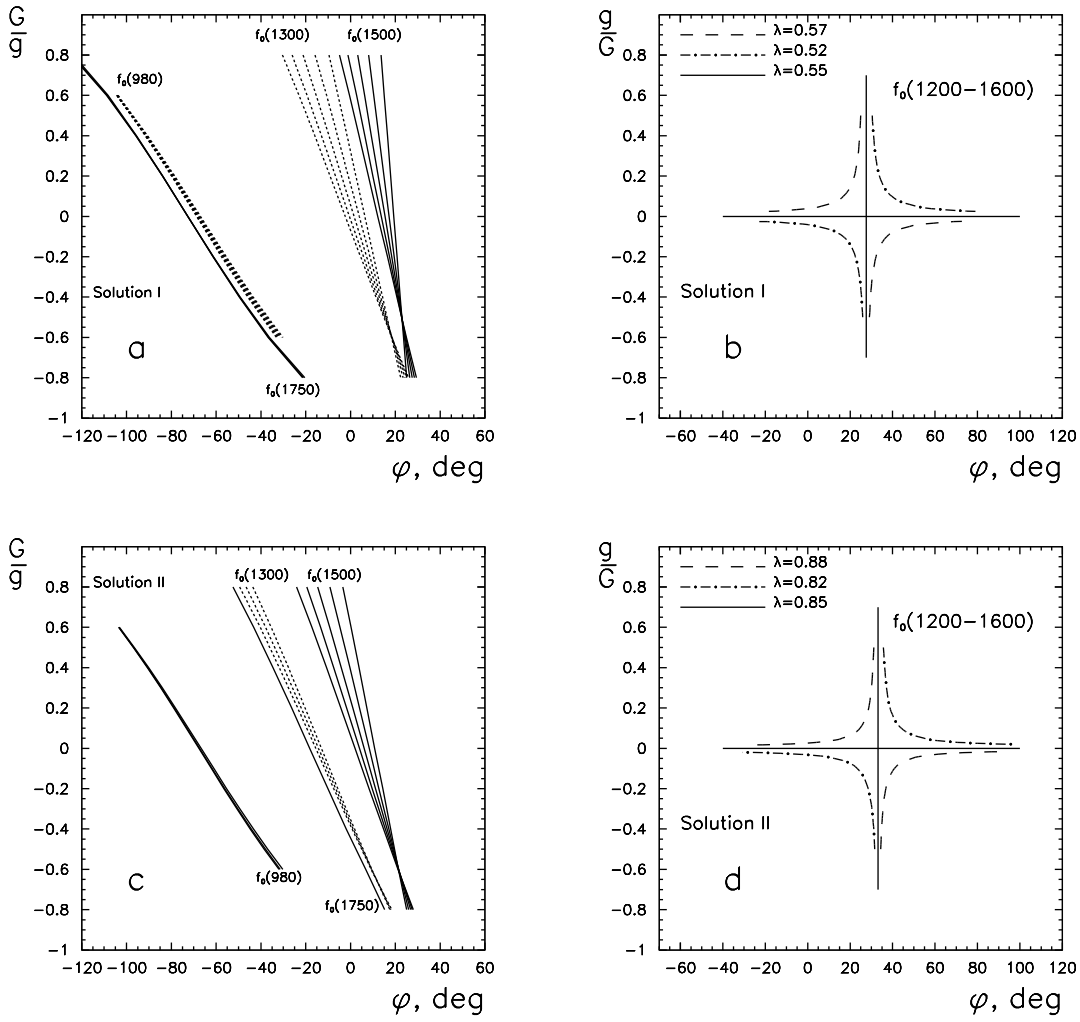

Figure 8: Correlation curves on the $(\varphi, G/g)$ and $(\varphi, g/G)$ plots for the description of the decay couplings of resonances (Table 4) in terms of quark-combinatorics relations (38). a,c) Correlation curves for the $q\bar{q}$-originated resonances: the curves with appropriate λ's cover strips on the $(\varphi, G/g)$ plane. b,d) Correlation curves for the glueball descendant: the curves at appropriate λ's form a cross on the $(\varphi, g/G)$ plane with the center near $\varphi \sim 30^\circ$, $g/G \sim 0$.

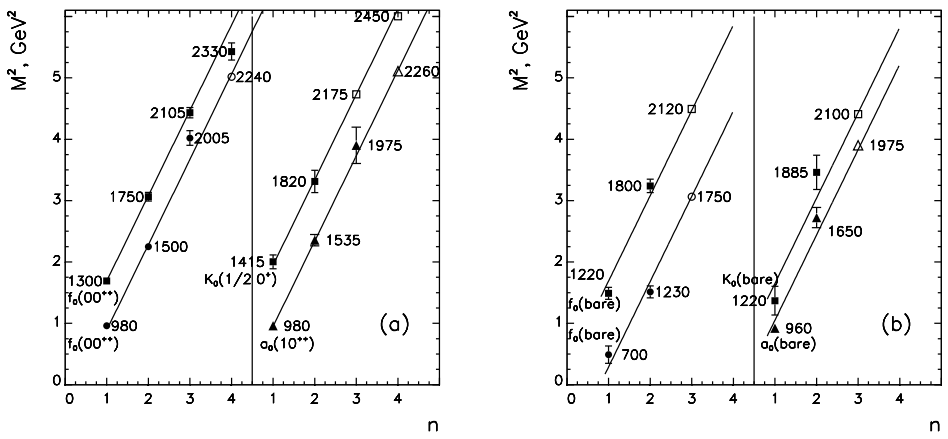

Figure 9: Linear trajectorieson the (n, M^2) plane for scalar resonances (a) and bare scalar states (b). Open circles correspond to the predicted states.

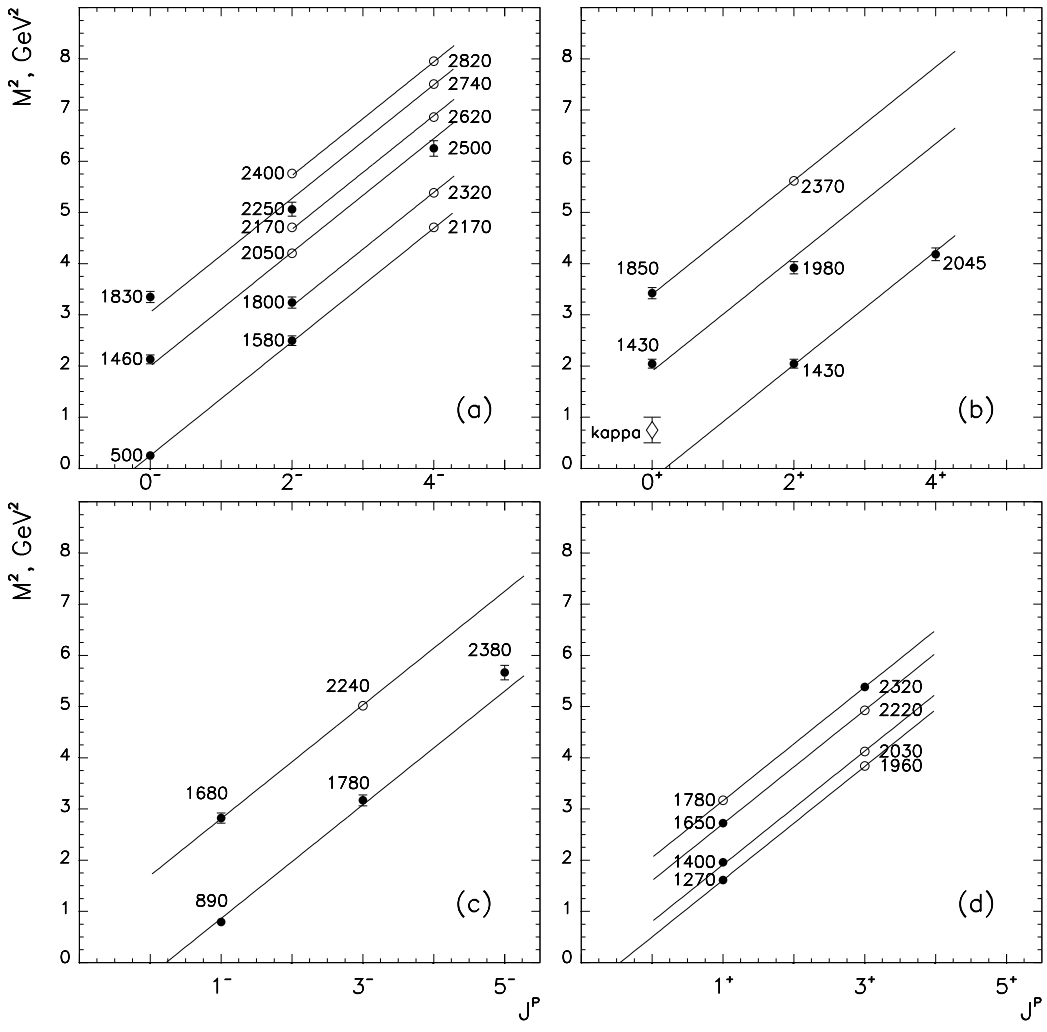

Figure 10: The (J^P, M^2) planes for kaonic sector (open circles stand for the predicted states).

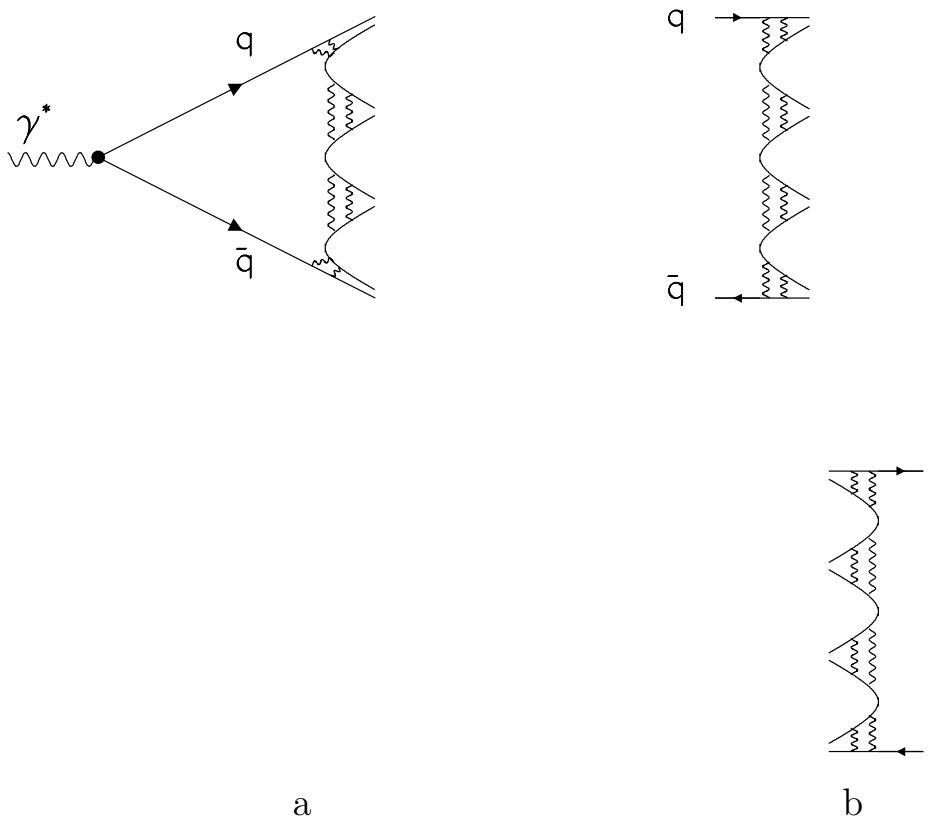

Figure 11: a) Quark-gluonic comb produced by breaking a string by quarks flowing out in the process $e^+e^- \to \gamma^* \to q\bar{q} \to mesons$. b) Convolution of the quark-gluonic combs — an example of diagrams describing interaction forces in the $q\bar{q}$ systems at $r \sim 2.0$ fm.