## **Excited QCD 2018**



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## Scalar mesons: fifty years of challenging the quark model

Monday 12 March 2018 09:30 (30 minutes)

Five decades of work on the light scalar-meson nonet composed of  $f_0(500)$ ,  $f_0(980)$ ,  $K_0^\star(800)$ , and  $a_0(980)$ , as well as on other scalar mesons, will be briefly reviewed. The different phenomenological descriptions include tetraquark bound states, pure meson-meson models, unitarised effective chiral approaches, unitarised quark models, and lattice-QCD simulations. Also, the charmed-strange scalar meson  $D_{s0}^\star(2317)$  is shown to be an excellent laboratory for studying the scalar-meson dynamics. Very recent lattice results are presented that confirm the dynamical quark-antiquark/meson-meson picture successfully modelled by us long ago.

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