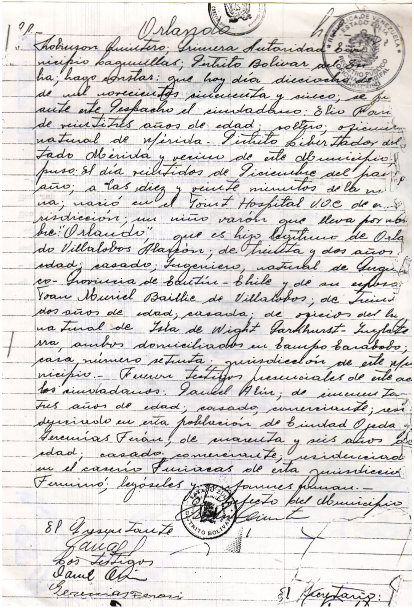
The Young Orlando Days

Gron Tudor Jones

University of Birmingham

16 February 2023

Orlando's birth certificate: 22 December 1954

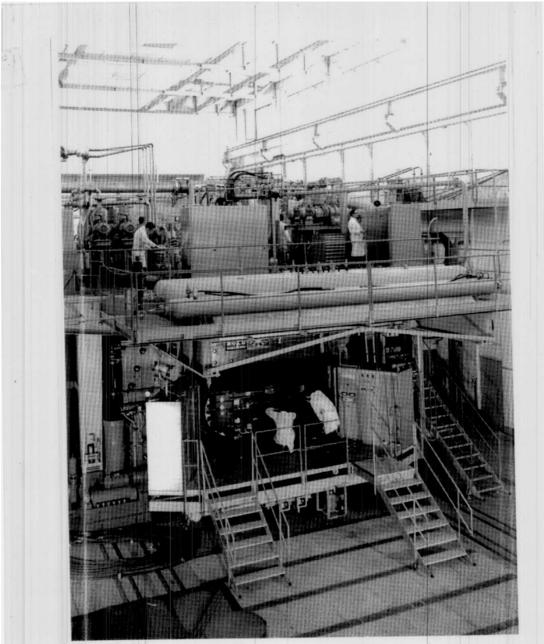

91.- Orlando
Robinson Quintero; Primera Autoridad Civil del Mu-
nicipio Baquevillas; Distrito Bolivar del Estado Zu-
lia; hago constar: que hoy día dieciocho de
de mil novecientos cincuenta y cinco; se pre[sentó]
ante este Despacho el ciudadano: Elio Rom[ero]
de veintitres años de edad; soltero; oficinis[ta]
natural de Mérida- Distrito Libertador del [Es-]
tado Mérida y vecino de este Municipio; [ex-]
puso: El día veintidos de Diciembre del pa[sado]
año; a las diez y veinte minutos de la ma[ña-]
na; nació en el Tount Hospital V.O.C de es[ta ju-]
risdicción; un niño varón que lleva por nom-
bre: "Orlando", que es hijo legítimo de Orla[n-]
do Villalobos Alarcón; de treinta y dos años [de]
edad; casado; Ingeniero, natural de Ingui[-]
co- Provincia de Cautín - Chile y de su esposa
Joan Muriel Baillie de Villalobos; de treinta
dos años de edad; casada; de oficios del ho[gar]
natural de Isla de Wight Parkhurst- Inglate-
rra, ambos domiciliados en Campo Carabobo;
casa número setenta; jurisdicción de este Mu-
nicipio.- Fueron testigos presenciales de este ac[to]
los ciudadanos: Daniel Alin; de cincuenta y
tres años de edad; casado; comerciante; resi-
denciado en esta población de Ciudad Ojeda
Jeremías Ferán; de cuarenta y seis años de
edad; casado; comerciante; residenciado
en el caserío Funiacas de esta jurisdicción
Terminó; leyóseles y conformes firman.-
El Prefecto del Municipio
El Presentante
Los Testigos
El Secretario:

The First 21 Years (1954-1975)

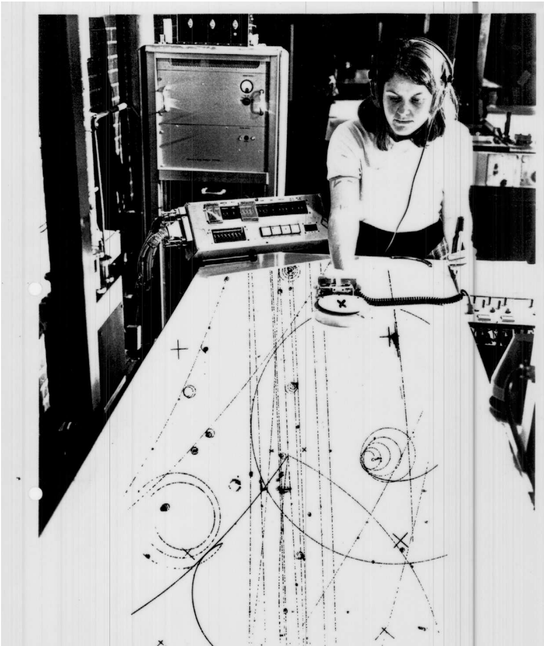
- Born Lagunillas, Zulia
- 1960 First School - Cardón
- 1962 British School - Caracas
- 1965 Woolpit School Surrey, UK
- 1968 Stowe School - Bucks, UK

- Merton College Oxford
  Physics and Philosophy

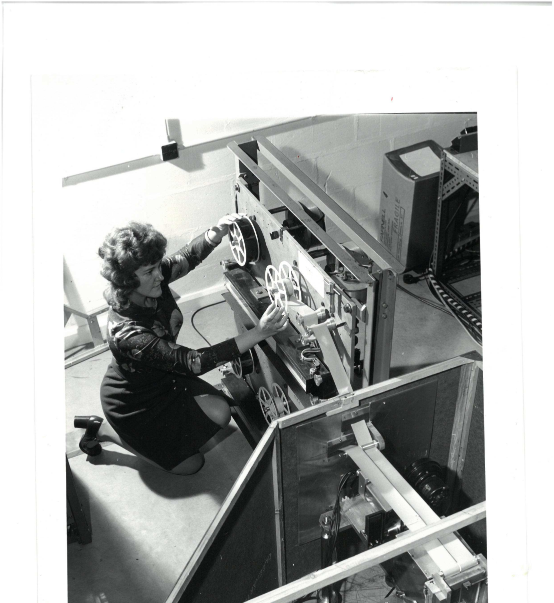
CERN 2 metre hydrogen bubble chamber



Scanning 2 metre CERN bubble chamber picture

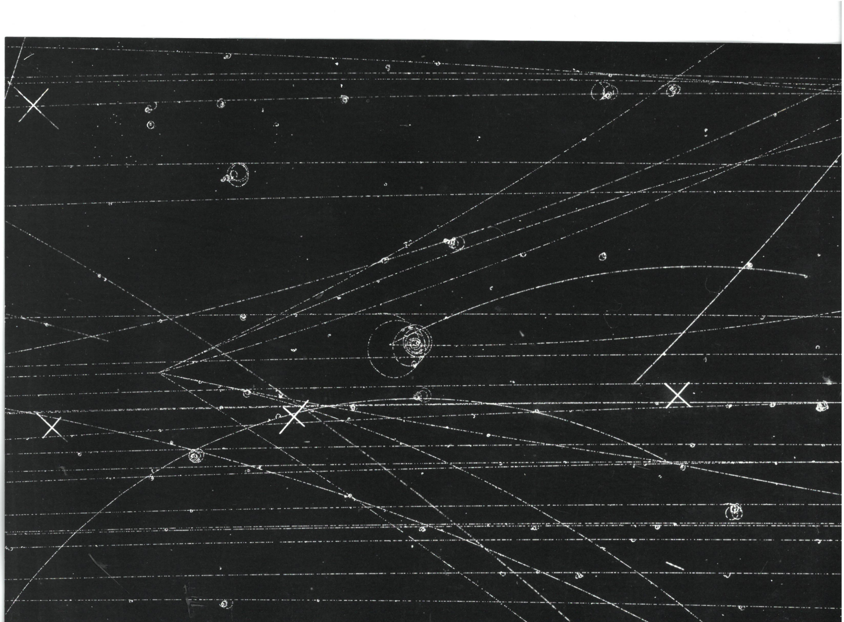


Loading film onto 'Flying Spot Device' (measuring)

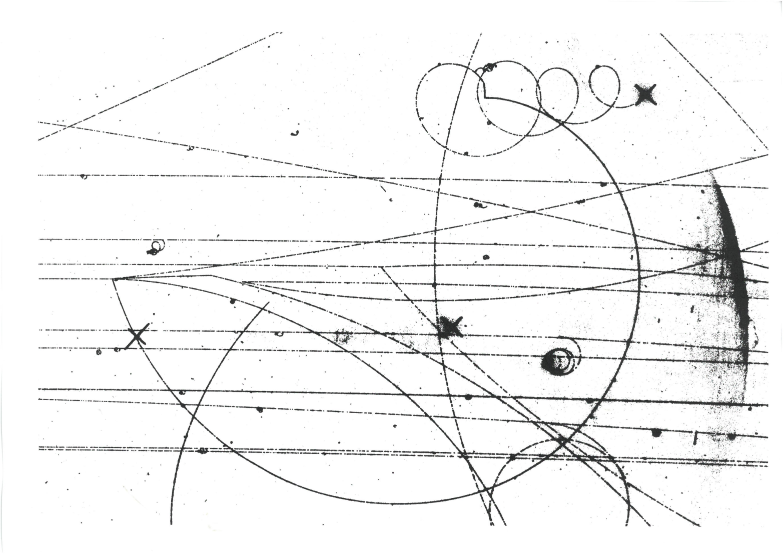


Millionth event:

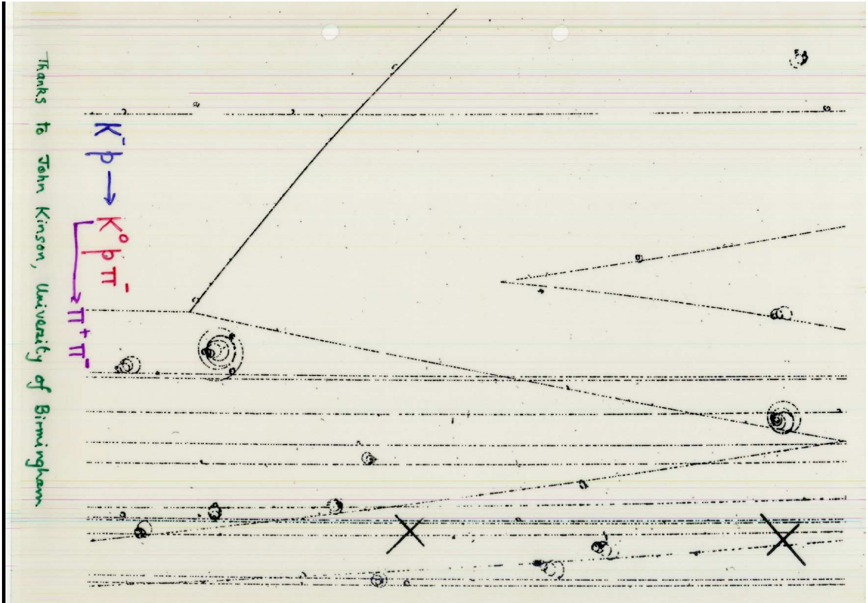
$K^- p \longrightarrow \pi^- \pi^- \pi^- \pi^+ \pi^+ p \bar{K}^0 \pi^0$



A beautifully rich event: $K^- p \longrightarrow K^- \pi^- \pi^+ p K^0 + ?$



An event from Orlando's MSc thesis



Orlando the graduate student

MSc (1978) Funded by a *Gran Mariscal de Ayacucho* scholarship.

A Study of $\bar{K}^0$ Final States in $K^- p$ Interactions at 8.25 GeV/c

PhD (1983) Funded by a *British Council* scholarship.

Strangeonium Production and Ξ^* Production in $K^- p$ Interactions at 8.25 GeV/c

Dalitz plot: $M^2(\bar{K}^0\pi^-)$ vs $M^2(p\pi^0)$

From MSc

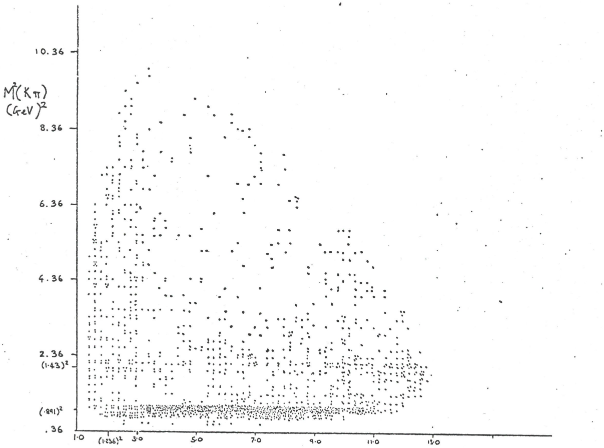
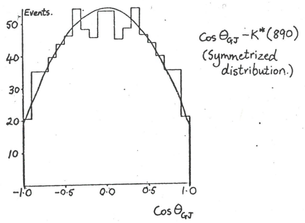
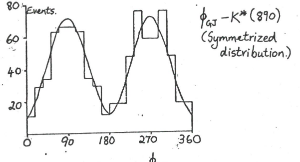


Fig. 21.

Gottfried-Jackson angles of the $K^*(890)$

From MSc





PWA of f' region in $K^- p \longrightarrow K \bar{K} \Lambda^0$

From PhD

Z. Phys. C - Particles and Fields 17, 309-317 (1983)

Zeitschrift für Physik C Particles and Fields

A Partial Wave Analysis of the f' Region in the Reaction $K^- p \to K\bar{K}\Lambda^0$ at 8.25 GeV/c

Birmingham[1]* - CERN[2] - Glasgow[3]* - Michigan State[4]** - Paris[5]*** Collaboration

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Received 29 December 1982

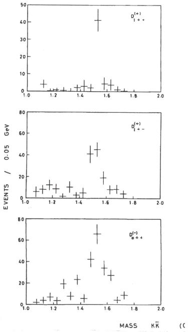
Abstract. A partial wave analysis of the $K\bar{K}$ system produced by 8.25 GeV/c K^- mesons in the reaction $K^- p \to K\bar{K}\Lambda^0$ has been performed, taking into account the information provided by the Λ^0 decay. The f' region is dominated by $D_0^{(-)}$ and $D_1^{(+)}$ waves. We see no evidence for the production of new 0^{++} states in the mass region 1.05 to 1.75 GeV.

We present the results of a study of the reactions

$$K^- p \to K^+ K^- \Lambda^0 \quad (1)$$

$$K^- p \to K_s^0 K_s^0 \Lambda^0 \quad (2)$$

at 8.25 GeV/c. The data correspond to a sensitivity of ~180 events/μb, and were obtained in a series of exposures of the CERN 2m hydrogen bubble chamber to an r.f. separated beam of K^- mesons. In all 5.3 million pictures have been analysed.



$K\bar{K}$ double moments in helicity amplitudes

From PhD

Table 1. Relations between the $K^- p \to (K\bar{K})\Lambda$ double moments $H(LMlm)$ and helicity amplitudes. In each product the second amplitude is taken to be the complex conjugate, and for $l=0$, $l=1$, H is used to denote $\mathrm{Re}\,H$ and $\mathrm{Im}\,H$ respectively

$$H(0000) = \mathrm{Re}\left[S^{(-)2}_{0++} + S^{(-)2}_{0+-} + P^{(-)2}_{0++} + P^{(-)2}_{0+-} + P^{(+)2}_{1++} + P^{(+)2}_{1+-} + P^{(-)2}_{1++} + P^{(-)2}_{1+-} + D^{(-)2}_{0++} + D^{(-)2}_{0+-} + D^{(+)2}_{1++} + D^{(+)2}_{1+-} + D^{(-)2}_{1++} + D^{(-)2}_{1+-}\right]$$

$$H(0011) = \alpha\,\mathrm{Im}\left[0.4714\,(S^{(-)}_{0+-} S^{(-)}_{0++} + P^{(-)}_{0+-} P^{(-)}_{0++} - P^{(+)}_{1+-} P^{(+)}_{1++} + P^{(-)}_{1+-} P^{(-)}_{1++} + D^{(-)}_{0+-} D^{(-)}_{0++} - D^{(+)}_{1+-} D^{(+)}_{1++} + D^{(-)}_{1+-} D^{(-)}_{1++})\right]$$

$$H(1000) = \mathrm{Re}\left[1.1547\,(S^{(-)}_{0++} P^{(-)}_{0++} + S^{(-)}_{0+-} P^{(-)}_{0+-}) + 1.0328\,(P^{(-)}_{0++} D^{(-)}_{0++} + P^{(-)}_{0+-} D^{(-)}_{0+-}) + 0.8944\,(P^{(+)}_{1++} D^{(+)}_{1++} + P^{(+)}_{1+-} D^{(+)}_{1+-} + P^{(-)}_{1++} D^{(-)}_{1++} + P^{(-)}_{1+-} D^{(-)}_{1+-})\right]$$

$$H(1010) = 0$$

$$H(1011) = \alpha\,\mathrm{Im}\left[0.2722\,(S^{(-)}_{0+-} P^{(-)}_{0++} - S^{(-)}_{0++} P^{(-)}_{0+-}) + 0.6086\,(P^{(-)}_{0+-} D^{(-)}_{0++} - P^{(-)}_{0++} D^{(-)}_{0+-}) + 0.2108\,(-P^{(+)}_{1+-} D^{(+)}_{1++} + P^{(-)}_{1+-} D^{(-)}_{1++} + P^{(+)}_{1++} D^{(+)}_{1+-} - P^{(-)}_{1++} D^{(-)}_{1+-})\right]$$

$$H(1100) = \mathrm{Re}\left[0.8165\,(S^{(-)}_{0++} P^{(-)}_{1++} + S^{(-)}_{0+-} P^{(-)}_{1+-}) - 0.6325\,(P^{(-)}_{0++} D^{(-)}_{1++} + P^{(-)}_{0+-} D^{(-)}_{1+-}) + 0.3651\,(P^{(-)}_{1++} D^{(-)}_{0++} + P^{(-)}_{1+-} D^{(-)}_{0+-})\right]$$

$$H(1110) = \alpha\,\mathrm{Im}\left[-0.2722\,(S^{(-)}_{0++} P^{(+)}_{1++} + S^{(-)}_{0+-} P^{(+)}_{1+-}) - 0.2108\,(P^{(-)}_{0++} D^{(+)}_{1++} + P^{(-)}_{0+-} D^{(+)}_{1+-})\right]$$

$$H(1111) = \alpha\,\mathrm{Im}\left[0.1925\,(S^{(-)}_{0+-} P^{(+)}_{1++} + S^{(-)}_{0+-} P^{(-)}_{1++} - S^{(-)}_{0++} P^{(+)}_{1+-} - S^{(-)}_{0++} P^{(-)}_{1+-}) + 0.1491\,(P^{(-)}_{0+-} D^{(+)}_{1++} + P^{(-)}_{0+-} D^{(-)}_{1++} - P^{(-)}_{0++} D^{(+)}_{1+-} - P^{(-)}_{0++} D^{(-)}_{1+-}) + 8.606 \times 10^{-2}\,(P^{(+)}_{1+-} D^{(-)}_{0++} + P^{(-)}_{1+-} D^{(-)}_{0++} - P^{(+)}_{1++} D^{(-)}_{0+-} - P^{(-)}_{1++} D^{(-)}_{0+-})\right]$$

$$H(111{-}1) = \alpha\,\mathrm{Im}\left[0.1925\,(S^{(-)}_{0++} P^{(+)}_{1+-} - S^{(-)}_{0++} P^{(-)}_{1+-} - S^{(-)}_{0+-} P^{(+)}_{1++} + S^{(-)}_{0+-} P^{(-)}_{1++}) + 0.1491\,(P^{(-)}_{0++} D^{(+)}_{1+-} - P^{(-)}_{0++} D^{(-)}_{1+-} - P^{(-)}_{0+-} D^{(-)}_{1++} + P^{(-)}_{0+-} D^{(-)}_{1++}) + 8.606 \times 10^{-2}\,(P^{(+)}_{1++} D^{(-)}_{0+-} - P^{(-)}_{1++} D^{(-)}_{0+-} - P^{(+)}_{1+-} D^{(-)}_{0++} + P^{(-)}_{1+-} D^{(-)}_{0++})\right]$$

$$H(2000) = \mathrm{Re}\left[0.8944\,(S^{(-)}_{0++} D^{(-)}_{0++} + S^{(-)}_{0+-} D^{(-)}_{0+-}) + 0.4\,(P^{(-)2}_{0++} + P^{(-)2}_{0+-}) - 0.2\,(P^{(-)2}_{1++} + P^{(-)2}_{1+-} + P^{(+)2}_{1++} + P^{(+)2}_{1+-}) + 0.2857\,(D^{(-)2}_{0++} + D^{(-)2}_{0+-}) + 0.1429\,(D^{(-)2}_{1++} + D^{(-)2}_{1+-} + D^{(+)2}_{1++} + D^{(+)2}_{1+-})\right]$$

$$H(2010) = 0$$

$$H(2011) = \alpha\,\mathrm{Im}\left[0.1886\,P^{(-)}_{0+-} P^{(-)}_{0++} + 9.428 \times 10^{-2}\,(P^{(+)}_{1+-} P^{(+)}_{1++} - P^{(-)}_{1+-} P^{(-)}_{1++}) + 0.1347\,D^{(-)}_{0+-} D^{(-)}_{0++} + 0.1010\,(D^{(-)}_{1+-} D^{(-)}_{1++} - D^{(+)}_{1+-} D^{(+)}_{1++}) + 0.2108\,(S^{(-)}_{0+-} D^{(-)}_{0++} - S^{(-)}_{0++} D^{(-)}_{0+-})\right]$$

$$H(2100) = \mathrm{Re}\left[0.6325\,(S^{(-)}_{0++} D^{(-)}_{1++} + S^{(-)}_{0+-} D^{(-)}_{1+-}) + 0.4899\,(P^{(-)}_{0++} P^{(-)}_{1++} + P^{(-)}_{0+-} P^{(-)}_{1+-}) + 0.2020\,(D^{(-)}_{0++} D^{(-)}_{1++} + D^{(-)}_{0+-} D^{(-)}_{1+-})\right]$$

$$H(2110) = \alpha\,\mathrm{Im}\left[-0.2108\,(S^{(-)}_{0++} D^{(+)}_{1++} + S^{(-)}_{0+-} D^{(+)}_{1+-}) + 0.1633\,(P^{(+)}_{1++} P^{(-)}_{0++} + P^{(+)}_{1+-} P^{(-)}_{0+-}) + 6.734 \times 10^{-2}\,(D^{(+)}_{1++} D^{(-)}_{0++} + D^{(+)}_{1+-} D^{(-)}_{0+-})\right]$$

$$H(2111) = \alpha\,\mathrm{Im}\left[0.1491\,(S^{(-)}_{0+-} D^{(+)}_{1++} + S^{(-)}_{0+-} D^{(-)}_{1++} - S^{(-)}_{0++} D^{(+)}_{1+-} - S^{(-)}_{0++} D^{(-)}_{1+-}) + 0.1155\,(P^{(+)}_{1+-} P^{(-)}_{0++} + P^{(-)}_{1+-} P^{(-)}_{0++} - P^{(+)}_{1++} P^{(-)}_{0+-} - P^{(-)}_{1++} P^{(-)}_{0+-}) + 4.762 \times 10^{-2}\,(D^{(+)}_{1+-} D^{(-)}_{0++} + D^{(-)}_{1+-} D^{(-)}_{0++} - D^{(+)}_{1++} D^{(-)}_{0+-} - D^{(-)}_{1++} D^{(-)}_{0+-})\right]$$

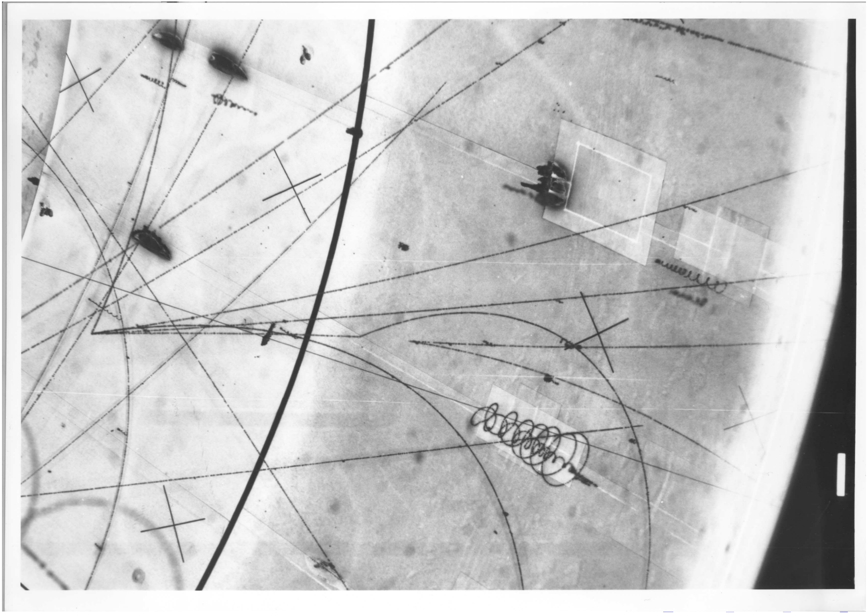
$$H(211{-}1) = \alpha\,\mathrm{Im}\left[0.1491\,(S^{(-)}_{0++} D^{(+)}_{1+-} - S^{(-)}_{0++} D^{(-)}_{1+-} - S^{(-)}_{0+-} D^{(+)}_{1++} + S^{(-)}_{0+-} D^{(-)}_{1++}) + 0.1155\,(P^{(-)}_{0++} P^{(+)}_{1+-} - P^{(-)}_{0++} P^{(-)}_{1+-} - P^{(-)}_{0+-} P^{(+)}_{1++} + P^{(-)}_{0+-} P^{(-)}_{1++}) + 4.762 \times 10^{-2}\,(D^{(-)}_{0++} D^{(+)}_{1+-} - D^{(-)}_{0++} D^{(-)}_{1+-} - D^{(-)}_{0+-} D^{(+)}_{1++} + D^{(-)}_{0+-} D^{(-)}_{1++})\right]$$

$$H(2200) = \mathrm{Re}\left[0.2449\,(P^{(-)2}_{1++} + P^{(-)2}_{1+-} - P^{(+)2}_{1++} - P^{(+)2}_{1+-}) + 0.1750\,(D^{(-)2}_{1++} + D^{(-)2}_{1+-} - D^{(+)2}_{1++} - D^{(+)2}_{1+-})\right]$$

$$H(2210) = \alpha\,\mathrm{Im}\left[0.1633\,(P^{(+)}_{1++} P^{(-)}_{1++} + P^{(+)}_{1+-} P^{(-)}_{1+-}) + 0.1166\,(D^{(+)}_{1++} D^{(-)}_{1++} + D^{(+)}_{1+-} D^{(-)}_{1+-})\right]$$

$$H(2211) = \alpha\,\mathrm{Im}\left[0.5774\,(P^{(+)}_{1+-} P^{(+)}_{1++} + P^{(+)}_{1+-} P^{(-)}_{1++} + P^{(-)}_{1+-} P^{(+)}_{1++} + P^{(-)}_{1+-} P^{(-)}_{1++}) + 8.248 \times 10^{-2}\,(D^{(+)}_{1+-} D^{(+)}_{1++} + D^{(+)}_{1+-} D^{(-)}_{1++} + D^{(-)}_{1+-} D^{(+)}_{1++} + D^{(-)}_{1+-} D^{(-)}_{1++})\right]$$

A brief foray into the neutrino world



Mary Trainor graduation

College de France meeting