

Google Colab notebooks and data repository

- <https://drive.google.com/drive/folders/1na31ZS-eLBNleu1DqIK20NCGP25hxWxg>
- The folder *Basics* contains the notebook for exercises of lessons 1-2
- The data files are located in the folder *Data Files/Spectroscopy*
- Suggestions:
 - copy locally the notebooks in your own gdrive area (once run you will find the latest copy of the notebook in your Colab Notebooks folder)
 - Leave the data files where they are, you can access them while reading

Bibliographic sources for further reading

Kinematics/spin composition

- Dalitz plot and basic kinematics
 - E. Segre, Nuclei and Particles, Benjamin-Cummings (Addison Wesley) (1964)
- Longitudinal plots
 - L. Van Hove, NP **B9** (1969), 331
 - P. Pauli et al., PR **C98** (2018), 065201
- Spin formalism
 - R. Dalitz, S. Tuan, Ann. Phys. **10** (1960), 307
 - W. Rarita, J. Schwinger, PR **D60** (1941), 61
 - S.U. Chung, BNL Reprint BNL-QGS-02-0900, Yellow Report CERN 71-8
 - S.U. Chung, PR **D56** (1997), 7299
- Zemach tensors, angular distributions and relativistic kinematics
 - V. Filippini, A. Fontana, A. Rotondi, PR **D51** (1995), 2247
 - S.U. Chung, PR **D48** (1995), 1225; PR **D57** (1998), 431

Further readings - dynamics

- PWA Analysis primer
 - K. Peters, Proceedings Varenna School 2004, arXiv:hep-ph/0412069
- N/D method
 - V.V. Anisovich et al., PR **D50** (1994), 1972
 - V.V. Anisovich et al., PL **B323** (1994) 233
- P-vector
 - I.J.R. Aitchison, NP **A189** (1972), 417
- Centrifugal barriers
 - J.M. Blatt, V. Weisskopf, Theoretical Nuclear Physics, Wiley, New York (1952)
 - F. Hippel, C. Quigg, PR **5** (1972), 624
- Flatté parameterization
 - S.M. Flatté, PL **B63** (1976), 224
- $\pi\pi$ S-wave phenomenological parameterizations
 - K.L. Au, D. Morgan, M.R. Pennington, PR **D35** (1987), 1633
 - B. Hyams, NP **64** (1973), 134