

ON THE INTERPLAY BETWEEN Q^2 AND t
DEPENDENCES IN EXCLUSIVE DIFFRACTIVE
PRODUCTION OF REAL PHOTONS AND VECTOR
MESONS IN ep COLLISIONS

*R. Fiore*¹, *L.L. Jenkovszky*², *A. Lavorini*¹, *V.K. Magas*³

¹Dipartimento di Fisica, Università della Calabria and
Istituto Nazionale di Fisica Nucleare,
Gruppo collegato di Cosenza

(*I-87036 Arcavacata di Rende, Cosenza, Italy;*
e-mail: fiore@fis.unical.it, adelmo.lavorini@gmail.com),

²Bogolyubov Institute for Theoretical Physics,

Nat. Acad. of Sci. of Ukraine

(*14-b, Metrologicheskaya Str., Kiev 03680, Ukraine;*

e-mail: jenk@bitp.kiev.ua),

³Departament d'Estructura i Constituents de la Matèria,
Universitat de Barcelona

(*Diagonal 647, 08028 Barcelona, Spain;*

e-mail: vladimir@ecm.ub.es)

S u m m a r y

We show how the familiar phenomenological way of combining the Q^2 (photon virtuality) and t (squared momentum transfer) dependences of the scattering amplitude in Deeply Virtual Compton Scattering (DVCS) [1, 2] and Vector Meson Production (VMP) [2] processes can be understood in an off-mass-shell generalization of dual amplitudes with Mandelstam analyticity [3]. By comparing different approaches, we managed also to constrain the numerical values of the free parameters.