המחלקה למתמטיקה, בן-גוריון

קולוקוויום

ביום *שלישי, 4 בנובמבר, 2025*

בשעה *15:30 – 14:30*

ב*101- Math*

ההרצאה

hypergeometric of families Orthogonal polynomials

תינתן על-ידי

Institute) (Weizmann Gourevitch Dmitry

תקציר: are that those - families polynomial quasi-orthogonal consider We linear a by defined form bilinear non-degenerate a to respect with orthogonal rational a by given is coefficients successive of ratio the which in - functional polynomial, the of index the is n Here, n. in polynomial is which f(n,k) function there renormalization, and rescaling to up that, show We coefficient. the of k and families. such five only are

polynomials, of space the for basis auxiliary an define we generally, More rather basis this to respect with coefficients consider and bases, Newtonian called satisfy that families polynomial the call We basis. monomial standard the than this to respect with coefficients successive of ratio on conditions rationality the renormalization, and shfit, rescaling, to up that, show We HG-families. basis

specialization a as arises family Each HG-families. quasi-orthogonal 10 only are there 10 the of Eight talk. the in notion this define will I series. hypergeometric some of theorem our view we and families, polynomial useful very classical are families functions. special of theory the in result classfiication a as quasi-orthogonal i.e. HG-families, rational general more the consider also We rational be to allowed is coefficients successive of f(n,k) ratio the which in families quasi-orthogonal on one theorems, main two the formulate will I well. as n in the as well as HG-families, quasi-orthogonal rational on one and HG-families nature. algebraic of are They proofs. the of ideas main Sahi. Siddhartha and Bernstein Joseph with work joint a is This