On a continued fraction of Ramanujan

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Time: Monday 22.07., 16:00 - 16:30, Room HS 4

Abstract: We study a continued fraction due to Ramanujan, that he recorded as Entry 12 in Chapter 16 of his second notebook. It is presented in Part III of Berndt's volumes on Ramanujan's notebooks. We give two alternate approaches to proving Ramanujan's Entry 12, one using a method of Euler, and another using the theory of orthogonal polynomials. We consider a natural generalization of Entry 12 suggested by the theory of orthogonal polynomials.

This is joint work with Mourad Ismail.