

Monodromy of the generalized hypergeometric equation in the Frobenius basis

02.02**Leslie Molag***(Katholieke Universiteit Leuven, Belgium)***Time:** Monday 22.07., 11:00 - 11:30, Room AM

Abstract: In his 1961 Ph.D. thesis Levelt gave an explicit construction for determining the monodromy group of the generalized hypergeometric equation. His result yields the explicit form of the monodromy matrices in a specific basis, which turns out to be connected to Mellin-Barnes integrals. In some situations we would like to know the form of these matrices in a different basis though, especially in the arguably most standard basis: the Frobenius basis. To obtain the form of the monodromy matrices in this basis I have followed an approach set out by Beukers. A particular challenge is the maximally unipotent case, where logarithmic terms turn up in the Frobenius basis. The emphasis of this talk will be on elucidating the general explicit form of the monodromy matrices for this case.