Workshop

JULES HOUËL (1823-86): A FRENCH MATHEMATICIAN WELL CONNECTED TO THE NORDIC MATHEMATICIANS IN THE SECOND PART OF THE XIXTH CENTURY

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The French mathematician and astronom Jules Houël (1823-86) taught especially real and complex analysis in the Bordeaux Science Faculty from 1859 until 1884. He was known as polyglott and a brilliant computer; he diffused the ideas of noneuclidean geometries into France. He founded and co-chaired – from 1870 until 1883, with G. Darboux - the "Bulletin des sciences mathématiques et astronomiques", which should inform French scientifics of European mathematics and astronomy. So Houël was connected to many European mathematicians. The study of the Houël's remaining correspondences shows two geographic poles: Italy (Battaglini, Bellavitis, Beltrami, d'Ovidio, Forti, ...) and Scandinavian (C.A. Bjerknes, Dillner, Lie, Mittag-Leffler, Zeuthen). With Italian mathematicians, Houël discussed especially noneuclidean geometries and their diffusion and with Nordic ones complex analysis, elliptic functions and also Abel's work and life. The second point will be the object of the present workshop. The most important of Houël's Nordic correspondents – in term of durée and quantity – was J. Diller, assistant professor in Uppsala University and editor of the Journal "Tidskrift för mathematik och physik". But no letters between both has been found; we only know about it from other correspondents. Dillner is an important person as the "supervisor" of Mittag-Leffler's Ph.D and encouraged him to write to Houël. The correspondence between Mittag-Leffler and Houël lasted from July 1872 until may 1883. It is really interesting because Houël is the first non Scandinavian mathematician whom Mittag-Leffler wrote to so we can follow the genesis of his ideas and many issues are covered. Obviously, the starting point is mathematics and more precisely complex analysis. Repeatedly, Mittag-Leffler and Houël discussed the theory of functions of one complex variable and elliptic functions; they discussed also the ways of teaching them. The organization of mathematics education in Europe and especially in France and Germany is a recurrent topic. Finally, the mathematics journals are omnipresent in the correspondence. Houël corresponded with S. Lie, a collaborator; in the early 80s, Lie informed him of the publication of the N.H. Abel's biography in Norwegian by C.A. Bjerknes; the old Houël decided to translate it into French in order to diffuse the mathematical ideas and the life of that great genius. Houël asked Bjerknes help for translating it. They corresponded from beginning of 1882 until May 1885; after May 1885, Houël could not work anymore: he died in June 1886. So that translation is the last work of Houël. Houël asked that his name not to be written on the publication: he

found his work not enough successful... We will provide letters translated into English from Houël to Mittag-Leffler, to Lie, to Bjerknes and from Mittag-Leffler, Bjerknes to Houël in order to present those strong connections between Houël and Nordic mathematicians.