



Arnaud Denjoy

1884 – 1974

Arnaud Denjoy was born on January 5, 1884 in Auch, France. His father, Jean Denjoy was a wine merchant in Perpignan. From his mother we only know her surname, Jayez and she came from Catalonia. Arnaud attended a secondary school in Auch which is the capital city of the Gers region, in southwestern France, having completed his schooling in Montpellier, southern France. He remained associated with these areas throughout his life.

In 1902 Denjoy entered the *École Normale Supérieure* having as masters Borel, Painlevé and Emile Picard. These great mathematicians gave Denjoy a strong background in complex function theory, continued fractions and differential equations and set him on the road to his great discoveries. Denjoy obtained the highest success during his undergraduate years, being the top student in his class; he won a prestigious scholarship, the *Fondation Thiers Fellowship*, which supported him during his three years dissertation work: *Sur les produits canoniques d'ordre infini*, which he submitted in 1909. He did not consider his dissertation work one of its greatest achievements, but it is now recognized to

contain some notable contributions, it studies the asymptotic behaviour of integral functions of finite order, Weierstrass products of integral functions and the boundary behaviour of conformal representations.

From Paris Denjoy moved back to Montpellier in 1909 when he was appointed "Maitre des conferences" at the University of Montpellier, he taught at Montpellier until the start of World War I in 1914.

Denjoy suffered from poor eyesight so he was not fit for military service during the war. In 1917 he was appointed to a professorship at Utrecht and in 1922 at the University of Paris, a post he held until he retired in 1955. In June 1923 he married Thérèse-Marie Chevresson. They had three children, all sons.

Denjoy worked on functions of a real variable in the same areas as Borel, Baire and Lebesgue. He combined topological and metrical methods to attack problems of real analysis. In 1934 he wrote that his greatest achievements had been the integration of derivatives, the computation of the coefficients of a converging trigonometric series, a theorem on quasi-analytic functions, and differential equations on a torus.

Beyond mathematics he was fascinated by topics such as philosophy, psychology, and social studies.

He died on January 21, 1974 in Paris, France, with 90 years age.

Sources

GUIMARÃES, António Andrade - Vida e Obra do Professor José Sebastião e Silva . Porto : [s.n.], 1972. [Consult. 7 de Jan. 2010]. Available in WWW: URL: <http://www.esec-sebastiao-silva.rcts.pt/JSS/biograf/leitura.htm>

Wapedia . [s.l. :s.n., s.d.], mod. 20 Nov. 2009. [Consult. 5 e 6 Jan. 2010]. Available in WWW: http://wapedia.mobi/en/Arnaud_Denjoy

Statemaster. [s.l.] : StateMaster, 2003-2010. [Consult. 5 e 6 Jan. 2010]. Available in WWW: <http://www.answers.com/topic/george-cantor>

MacTutor History of Mathematics archive. St Andrews : University of St Andrews, 2009. [Consult. 5 e 6 Jan. 2010]. Available in WWW: <http://www-groups.dcs.st-and.ac.uk/~history/Mathematicians/Denjoy.html>

Wikipedia . [s.l.] : Wikipedia Foundation, [s.d.], mod. 20 Nov. 2009. [Consult. 5 e 6 Jan. 2010] Available in WWW: http://en.wikipedia.org/wiki/Arnaud_Denjoy

Available books in the Mathematical Library

DENJOY, Arnaud - *L'énumération transfinitie*. Paris : Gauthier-Villars, 1949-1954. 969 p.

CAVE-03E/DEN

DENJOY, Arnaud - *Introduction à la théorie des fonctions de variables réelles*. Paris : Hermann, 1937. 2 vols

CAVE-26B/DEN/P.1

CAVE-26B/DEN/P.2/ex.1

CAVE-26B/DEN/P.2/ex.2

DENJOY, Arnaud - *Mémoire sur la dérivation et son calcul inverse*. Paris : Gauthier-Villars, 1954. VIII, 380 p.

CAVE-26A/DEN

DENJOY, Arnaud - *Un demi-siècle (1907-1956) de notes communiquées aux Académies de Paris, d'Amsterdam, des Lincei [...]*. Paris : Gauthier-Villars, 1957. 2 vols

CAVE-00B15/DEN/T.1

CAVE-00B15/DEN/T.2

BOREL, Émile - *Leçons sur la théorie de la croissance*. Paris : Gauthier-Villars, 1910. VI, 168 p.

CAVE-26A/BOR/ex.1

CAVE-26A/BOR/ex.2

DENJOY, Arnaud - *Leçons sur le calcul des coefficients d'une série trigonométrique*. Paris : Gauthier-Villars, 1941-1949. 4 vols

CAVE-42A/DEN/ex.1

CAVE-42A/DEN/ex.2

DENJOY, Arnaud - *Articles et mémoires*. Paris : Gauthier-Villars, 1955. 2 vols

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