

# Logique et informatique à Nancy

**Pierre Lescanne**

École normale supérieure de Lyon

14 janvier 2019



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## Ernest Vessiot

[Biography](#) [MathSciNet](#)

Ph.D. [Université de Paris](#) 1892



*Dissertation: Sur l'intégration des équations différentielles linéaires*

Mathematics Subject Classification: 34—Ordinary differential equations

Advisor: [C. Émile \(Charles\) Picard](#)

Students:

Click [here](#) to see the students listed in chronological order.

Name	School	Year	Descendants
<a href="#">Herbrand, Jacques</a>	Université de Paris	1930	
<a href="#">Pérès, Joseph</a>	Université de Paris	1915	198

According to our current on-line database, Ernest Vessiot has 2 [students](#) and 200 [descendants](#).

We welcome any additional information.

If you have additional information or corrections regarding this mathematician, please use the [update form](#). To submit students of this mathematician, please use the [new data form](#), noting this mathematician's MGP ID of 122554 for the advisor ID.

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## Joseph Jean Camille Pérès

[Biography](#)

Ph.D. [Université de Paris](#) 1915



Dissertation: *Sur les fonctions permutables de première espèce de M. Vito Volterra*

Mathematics Subject Classification: 46—Functional analysis

Advisor 1: [Vito Volterra](#)

Advisor 2: [Ernest Vessiot](#)

Students:

Click [here](#) to see the students listed in chronological order.

Name	School	Year	Descendants
<a href="#">Cabannes, Henri</a>	Université de Paris	1950	18
<a href="#">Huard, Pierre</a>			46
<a href="#">Legras, Jean</a>	Université de Paris	1948	116
<a href="#">Malavard, Lucien</a>	Université de Paris	1939	47
<a href="#">Souriau, Jean-Marie</a>	ONERA (French Aerospace Lab)	1952	13

According to our current on-line database, Joseph Pérès has 5 [students](#) and 198 [descendants](#).

We welcome any additional information.

If you have additional information or corrections regarding this mathematician, please use the [update form](#). To submit students of this mathematician, please use the [new data form](#), noting this mathematician's MGP ID: 642996.



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## Jean Legras

[MathSciNet](#)

Ph.D. [Université de Paris](#) 1948



*Dissertation: Contribution à l'étude de l'aile portante*

Mathematics Subject Classification: 65—Numerical analysis

Advisor: [Joseph Jean Camille Pérès](#)

Students:

Click [here](#) to see the students listed in chronological order.

Name	School	Year	Descendants
<a href="#">Dufourd, Jean-François</a>	Université Henri Poincaré Nancy 1	1971	7
<a href="#">Pair, Claude</a>	Université Henri Poincaré Nancy 1	1966	97
<a href="#">Proth, Jean-Marie</a>	Université Henri Poincaré Nancy 1	1971	9

According to our current on-line database, Jean Legras has 3 [students](#) and 116 [descendants](#).

We welcome any additional information.

If you have additional information or corrections regarding this mathematician, please use the [update form](#). To submit students of this mathematician, please use the [new data form](#), noting this mathematician's MGP ID of 122548 for the advisor ID.

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## Claude Pair

[MathSciNet](#)

Ph.D. [Université Henri Poincaré Nancy 1](#) 1966



Dissertation: *Étude de la notion de pile, application à l'analyse syntaxique*

Advisor: [Jean Legras](#)

Students:

Click [here](#) to see the students listed in chronological order.

Name	School	Year	Descendants
<a href="#">Bellegarde, Françoise</a>	Université Henri Poincaré Nancy 1	1985	1
<a href="#">Cousot, Radhia</a>	Institut National Polytechnique de Lorraine	1985	9
<a href="#">Finance, Jean-Pierre</a>	Université Henri Poincaré Nancy 1	1972	27
<a href="#">Gaudel, Marie-Claude</a>	Institut National Polytechnique de Lorraine	1980	
<a href="#">Jaray, Jaques</a>	Université Henri Poincaré Nancy 1	1974	
<a href="#">Lescanne, Pierre</a>	Institut National Polytechnique de Lorraine	1979	28
<a href="#">Meyer, Bertrand</a>	Université Henri Poincaré Nancy 1	1985	26
<a href="#">Mohr, Roger</a>	Université Henri Poincaré Nancy 1	1978	27

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According to our current on-line database, Claude Pair has 8 [students](#) and 97 [descendants](#).



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\$2.45

Norbert Wiener

# I AM A MATHEMATICIAN

**THE LATER LIFE OF A PRODIGY**

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Nancy,  
Cybernetics,  
Paris, and After:  
1946—1952

In the summer of 1946 there was to take place a private mathematical conference on harmonic analysis in France, at the University of Nancy. I was invited to participate. As a matter of fact, much of the meeting was to deal with my ideas. I traveled to England on a Dutch boat, and before taking part in the meeting I made my usual visit to England and my English friends. I visited University College, London, where J. B. S. Haldane was teaching. He had been divorced from his first wife, and he was now married to a brilliant young geneticist who had been his assistant during the war in physiological experiments they had made concerning the effect on various gases under high pressure.

Both of them had repeatedly put on diving suits and descended into steel tanks of water, and had been subjected

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*Acta Mathematica Academiae Scientiarum Hungaricae*  
Tomus 21 (3—4), (1970), pp. 297—313

## DIE PAIRSCHEN<sup>1</sup> FREIEN BINOÏDEN ALS SPEZIALFÄLLE DER ANGEORDNETEN FREIEN HOLOMORPHEN MENGEN

von

RÓZSA PÉTER (Budapest)

I. J. 1959 habe ich<sup>2</sup> den allgemeinen Begriff der angeordneten freien holomorphen Mengen (Mengen mit „zahlenartig“ aufbaubaren Elementen) eingeführt, und die Theorie der rekursiven Funktionen für solche abstrakte Mengen als Definitionsbereiche verallgemeinert; ferner als wichtigsten Spezialfall den Fall der „Wortmengen“ („freie Monoïden“, d. h. Mengen der endlichen Folgen aus Elementen je einer gegebenen Menge) über „Alphabete“ beliebiger Mächtigkeit ausgearbeitet. Bis zur letzten Zeit wurden unter den Spezialfällen des allgemeinen Begriffes nur die Wortmengen vielseitig untersucht und angewandt. Nun wurde in [1] ein in wichtigen Anwendungen, insbesondere in der mathematischen Grammatik nützlicher Begriff, der Begriff der „freien Binoïden“ eingeführt, von welchen in vorliegender Arbeit gezeigt wird, daß — und wie — auch sie als angeordnete freie holomorphe Mengen definiert werden können, und wie sich die allgemeine Theorie der rekursiven

# Décidabilité de l'égalité des types récursifs (1969)

Google     

Livres    

Page 280   

Résultat 1 sur 1 dans ce livre pour **claude pair** [Effacer la recherche](#) 

280 20 Recursive Types

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**Types and Programming Languages**  
De Benjamin C. Pierce, Benjamin C. (Professor  
Pierce, University of Pennsylvania)

veyed by Courcelle (1983). Basic syntactic and semantic properties of recursive types without subtyping were established in early papers by Huet (1976) and MacQueen, Plotkin, and Sethi (1986). (An even earlier paper by **Claude Pair**, entitled *Concerning the Syntax of Algol 68*, contains what appears to be the first proof of the decidability of equality for equi-recursive types. The original, published in the Algol Bulletin, no. 31, March 1970, is difficult to find, but Pierre Lescanne has kindly made available a scanned copy on his web site.)

Morris (1968, pp. 122-124) first observed that recursive types can be used to construct a well-typed `fix` operator for terms (§20.1).

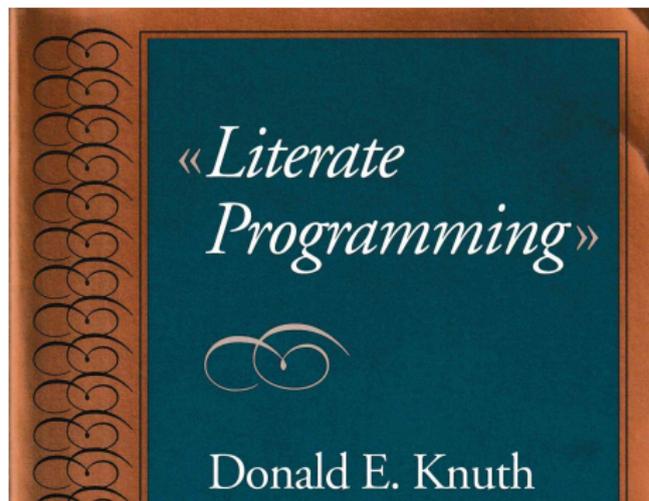
The relation between iso- and equi-recursive systems was explored by Abadi and Fiore (1996). The two formulations of recursive types have been around since the earliest work in the area, but the pleasantly mnemonic terms *iso-recursive* and *equi-recursive* are a recent coinage by Crary, Harper, and Puri (1999).

Additional citations on recursive types with subtyping can be found in §21.12.

# La méthode déductive (1979)

*Nous devons changer notre attitude traditionnelle envers la construction des programmes : au lieu de considérer que notre tâche principale est de dire à un ordinateur ce qu'il doit faire, appliquons-nous plutôt à expliquer à des êtres humains ce que nous voulons que l'ordinateur fasse.*

**Donald Knuth**, *Literate Programming* (1984)



# Les structures d'information (1974)

Claude Pair : Formalization of the Notions of Data, Information and Information Structure. IFIP Working Conference Data Base Management 1974 : 149-168

*octobre 1973 - Conférence avril 1974*

FORMALIZATION OF THE NOTIONS OF DATA,  
INFORMATION AND INFORMATION STRUCTURE

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Claude PAIP, UNIVERSITY OF NANCY II

## 1. INTRODUCTION

What is an information processing problem ? One can say that it is the transition from one information entity to another. Let us take the simple example of the computation of pay starting from an hourly salary (sh), a number of hours of work (nh), and considering the deduction for Social Security, that is :

$$(1) \begin{cases} \text{pay} = \text{sb} - \text{ss} \\ \text{sb} = \text{nh} \times \text{sh} \\ \text{ss} = \text{sb} \times 006 \end{cases}$$

# Les machines à états abstraits (~ 1985)

Une *machine à états abstraits* est un automate fini dont les états ne portent pas simplement des noms, mais des *structures* au sens de la logique mathématique, c'est-à-dire des ensembles non vides munis de fonctions, d'opérations et de relations. Les structures peuvent être vues comme des algèbres, ce qui explique le nom d'*algèbres évolutives* donné initialement aux ASM. [Wikipédia](#)

Yuri Gurevich : *Sequential abstract-state machines capture sequential algorithms*. ACM Trans. Comput. Log. 1(1) : 77-111 (2000)

# Les machines à états abstraits (~ 1985)

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[Yuri Gurevich](#) : *Sequential abstract-state machines capture sequential algorithms*. ACM Trans. Comput. Log. 1(1) : 77-111 (2000)

Les deux notions fondamentales de *type d'une donnée* et de *modification* d'un certain type se regroupent dans la notion de *structure* de données. [Pair et Finance](#) (1973).

# Les machines à états abstraits (~ 1985)

- Les acteurs nanciens :
  - ▶ Claude Pair,
  - ▶ Jean-Pierre Finance,
  - ▶ Jean-Luc Rémy,
  - ▶ Pierre Lescanne
- Une réunion annuelle depuis 1993,
- des dizaines de chercheurs,
- un outil développé par Microsoft.

**ALGOL 68** (Claude Pair, Alain Quéré)

**Programmation modulaire et plate-forme de développement (CIVA)**  
(Claude Pair, Jean-Claude Derniame)

**Compilateur de compilateur**

FACE (Claude Pair, Françoise Bellegarde)



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