

# CURRICULUM VITAE

## MOHAMED AIT NOUH

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### EDUCATION

**Ph.D.** Mathematics, May 2000; University of Provence, France.  
**M.Sc.** Econometrics, 1994; University of Aix-Marseille II, France.  
**M. Sc. (with high distinction)** Mathematics, June 1992; University of Provence.  
**B.Sc. (with high distinction)** Mathematics, June 1991; University of Provence.

### RESEARCH INTEREST

- Knot theory.
- Low-dimensional topology.
- Geometric Topology.
- Applications of knot theory to Dimension Four.

### WORK EXPERIENCE

<i>Aug. 2004- present</i>	<b>Visiting Assistant Professor</b>	Cal. State Univ. Channel Islands.
<i>Oct. 2001- June 2004</i>	<b>Visiting Assistant Professor</b>	UC Santa Barbara.
<i>Jan. 2002- June 2004</i>	<b>Instructor</b>	Santa Barbara and Ventura City Colleges.
<i>Oct. 1998- June 2001</i>	<b>Visiting Assistant Professor</b>	Univ. of Provence, France.
<i>Oct. 1994- June 1998</i>	<b>Teaching Assistant</b>	Univ. of Provence, France.
<i>Oct. 1999- June 2000</i>	<b>Visiting position</b>	Nihon Univ., Tokyo, Japan.

## AWARDS

- 1998 – 1999 Klein scholarship for distinguished Ph.D. student, France.  
1989 – 1994 Undergraduate and Post-graduate French government scholarship.  
1988 Gold medal Winner in French National Mathematical Olympiads, France.

## PUBLICATIONS

- Available on web page listed above.
- (1) “*Genus and degrees of torus knots in  $\mathbb{C}P^2$* ”,  
To appear in *Journal of Knot Theory and Its Ramifications*.
  - (2) (With D. Matignon and K. Motegi) “*Geometric types of twisted knots*,”  
*Annales mathématiques Blaise Pascal*, 13 no. 1 (2006), p. 31 – 85.
  - (3) (With D. Matignon and K. Motegi) “*Obtaining graph knots by twisting unknots*,”  
*Topology and Its Applications*, Vol. 146-147, 1, p. 105-121, January 2005.
  - (4) (With D. Matignon et K. Motegi) “*Knots obtained by twisting unknots*,”  
Acta of the Colloquium 'Topology of Knots VI' Nihon Univ. Dec. 16th-19th, 2003  
(2004), p. 151 – 160
  - (5) (With D. Matignon and K. Motegi) “*Twisted Unknots*”,  
C.R. Acad. Sci. Paris, Ser. I 337 (2003) 321 – 326.
  - (6) (With D. Matignon and K. Motegi) “*Gromov volumes of twisted knots*,”  
Proceedings of Japan-Mexico Conference (published by Top. and its Applications), June 2002.
  - (7) (With A. Yasuhara) “*Torus knots that can not be untied by twisting*,”  
*Révista Math. Univ. Compl. Madrid*, Vol. 14, (2001), 353-380.
  - (8) “*The minimal genus problem: New approach*,” Submitted (Dec. 2004),  
UC Santa Barbara preprints.
  - (9) “*A new invariant of knots via characteristic twisting*,” Submitted (Oct. 2006),  
California State Univ. Channel Islands preprints.
  - (10) “*The minimal genus problem in  $\mathbb{C}P^2 \# \mathbb{C}P^2$* ,” Submitted (Oct. 2006),  
California State Univ. Channel Islands preprints.
  - (11) “*The fundamental group of a twisted knot*,”  
California State Univ. Channel Islands preprints (*Preprint*).
  - (12) (With J. Purcell) “*Twisting and hyperbolic knots*”, In preparation  
California State Univ. Channel Islands preprints.

## PRESENTATIONS

- May, 2006 “A new invariant of knots” International Conference of Marseille, France.  
Apr, 2006 “A new invariant of knots via Kirby Calculus” Pitzer college Top.& Geo. seminar.  
“Knot theory” California State University Channal Island Graduate seminar.  
Mar, 2006 “A new invariant of knots via characteristic twisting” UC Riverside Top. seminar.  
“A new invariant of knots via characteristic twisting” Kansas SU Top. seminar.  
“Genus of torus knots in the complex projective plane” KSU Graduate seminar.  
June, 2005 “Applications of twisting to dimension four” Univ. of Provence Top. seminar.  
May, 2004 “Lawson’s conjectures” UC Santa Barbara Arithmetic and Algebraic Geo. seminar.  
“The minimal genus problem: New approach” UC Santa Barbara Top. seminar.  
Feb. 2004 “ $CP^2$ -genus and Lawson’s conjectures” UC Santa Barbara Top. seminar.  
Jan. 2004 “Characteristic twisting of knots in  $S^3$ ,” AMS national meeting, Phoenix-Arizona.  
May 2003 “Obtaining graph knots by twisting unknots,” UC Santa Barbara Top. seminar.  
Apr. 2002 “Combinatorial methods in knot theory,” UC Santa Barbara Top. seminar.  
Mar. 2001 “Torus knots that can not be untied by twisting,” U. Texas at Austin Top. seminar.  
Dec. 2001 “Torus knots that can not be untied by twisting,” UC Santa Barbara Top. seminar.  
Apr. 2000 “Twist and dimension four,” Paul Sabatier Univ. Top. seminar, Toulouse, France.  
Nov. 1999, “Classification of twisted satellite knots”, Nihon Univ. Top. seminar, Tokyo, Japan.  
“Non-exceptional torus knots are non-twisted, Nihon Univ. Topology seminar.

## SELECTED INVITED LECTURES

- Joint Mathematics Meeting, New Orleans, LA 2007.
- MAA Fall meeting, California State University Long Beach, 2006
- Joint Mathematics Meeting, San Antonio, TX January 2006.
- Joint Mathematics Meeting, Atlanta, GA January 2005.
- Joint Mathematics Meeting, Phoenix, AZ January 2004.
- Southern California Topology Conference, Caltech, 2004.
- Orsay International low-dimensional topology Conference, Paris VI, Orsay, 1999.
- Sussex International low-dimensional topology Conference, Sussex University, England, 1997.
- Luminy International low-dimensional topology Conference, Marseille, France 1996.

## COURSES TAUGHT

- (1) California State University Channel Islands, Camarillo, CA
  - *Spring* 2007: Algebraic Topology (Masters course, Math 595).
  - *Fall* 2004- *present*: Calculus for Business (Math 140).  
(Helped to choose New Custom Edition Calculus Textbook for Math 140).
  - *Fall* 2005: Calculus *I*.
- (2) Santa Barbara City College, Santa Barbara, CA
  - *Fall* 2004- *Spring* 2004: Elementary algebra (Math 100).
  - *Fall* 2002- *Spring* 2004: Calculus for Business and Biology (Math 130).
- (3) Ventura City College, Ventura, CA
  - *Summer* 2003 and *Summer* 2004: College algebra (MathV100).
  - *Spring* 2002- *Spring* 2004: Calculus for Business (Math V46), Intermediate Algebra (V03).
- (4) University of California, Santa Barbara, CA
  - *Fall* 2001: Integral Calculus (Math 3B).
- (5) University of Provence, Marseille, France
  - *Jan.* 2001- *Jun.* 2001: (Computer Science) Pascal, Algorithms, Unix.
  - *Oct.* 2000- *Jan.* 2000: (Graduate) Topology, Differential Geometry.
  - *Oct.* 1999- *June* 1999: (Graduate) Abstract Algebra, Topology.
  - *Oct.* 1994- *June* 1998: (Teaching Assistant) Calculus, Algebra.

## ACADEMIC AND COMMUNITY SERVICE

- (1) California State University Channel Islands:
  - *Fall* 2006:
    - Supervisor: *Two* Senior students.
    - Co-adviser: French Ph.D. student (Combinatorial methods in knot theory).
    - Member: Search Committee for Director of Faculty Development.
    - Judge: Student Research and Capstone Presentations.
  - *August* 2004-*May* 2005: Mathematics Tutoring Center Coordinator.
- (2) Professional organizations:
  - January 2007: Joint Mathematics Meetings, New Orleans, Louisiana.
    - Judge, MAA Undergraduate Poster Session.

## COMPUTER SKILLS

- Presentation softwares: Prosper, PowerPoint.
- InDesign, Adobe Illustrator.
- Animation softwares: Flash Swift 3D, Studio Version 3, Maya.
- Linux, LaTeX.

## MEMBERSHIP

- Member of the American Mathematical Society.
- Member of the Mathematical Association of America.

## LANGUAGES

English, French, Arabic and Spanish.

## HOBBIES: Competitive Running

Performances: 14 : 30 minutes in 5 km, 32 : 29 minutes in 10 km, *1h10mins* in half-Marathon.

- Third overall in Santa Barbara half Marathon (2002).
- Winner of the Ventura law day 10 K, Ventura (2002).
- Winner of Roucas Blanc 10 K, France (1998).

## REFERENCES

**Kenneth C. Millett, Professor (Teaching and Research)**  
Department of Mathematics, Univ. of California, Santa Barbara

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*Phone:*805-893-3894

**Martin Scharlemann, Professor (Research)**  
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**Kimihiko Motegi, Professor (Research)**  
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**Ivona Grzegorzcyk, Professor and Chair (Teaching)**  
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