



Universidad de Puerto Rico
Recinto Universitario de Mayagüez
Oficina del Rector



17 de diciembre de 2014

Dr. Uroyoán R. Walker Ramos
Presidente
Universidad de Puerto Rico
Jardín Botánico Sur
1187 Calle Flamboyán
San Juan, Puerto Rico 00926-1117

Estimado señor Presidente:

Ha culminado el proceso de consulta para la designación del **Decano de Asuntos Académicos** del Recinto Universitario de Mayagüez de la Universidad de Puerto Rico y al recibir los informes de los comités del personal docente y del no-docente, procedo a someter a usted mis recomendaciones. La selección de los comités de consulta se realizaron según el Reglamento de la Universidad de Puerto Rico. Le informo, además, que he entrevistado personalmente al recomendado.

El Comité del Personal Docente realizó trece reuniones de discusión, un foro público y dos entrevistas a los candidatos al puesto. Se recibieron nominaciones para quince (15) candidatos y sólo tres aceptaron. Estos fueron el Dr. Antonio Estévez del Departamento de Ingeniería Química, la Dra. Rosa Fernanda Martínez Cruzado del Departamento de Humanidades y el Dr. Jaime Seguel del Departamento de Ingeniería Eléctrica y Computadoras. Posteriormente, el doctor Estévez retiró su candidatura mediante comunicación electrónica. El Comité del Personal No-Docente recibió nominaciones de trece (13) candidatos y aceptaron el Dr. Antonio Estévez, la Dra. Rosa Fernanda Martínez Cruzado y el Dr. Jaime Seguel.

Ambos comités recomiendan sin reservas al Dr. Jaime Seguel. Entendiendo que él tiene todos los elementos y la capacidad necesaria para ocupar el puesto de Decano de Asuntos Académicos.

El doctor Seguel es chileno de nacimiento, pero naturalizado como ciudadano de los Estados Unidos de América. Realizó estudios de grado y posgrado en universidades de Chile y culminó su grado doctoral en la *City University of New York* con especialidad en Matemáticas. Ha sido profesor en la Universidad de Santiago y en la Universidad del Norte, ambas en Chile, en *Saint John's University* y en el Recinto Universitario de Mayagüez de la Universidad de Puerto Rico desde 1988. En Mayagüez, ha ocupado las siguientes

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posiciones administrativas: Director de Estudios Graduados, Coordinador del Programa Doctoral en *Computing Information Sciences and Engineering*, Decano Asociado de Asuntos Académicos del Colegio de Ingeniería, Decano de Ingeniería y Decano Interino de Asuntos Académicos, funciones que actualmente realiza.

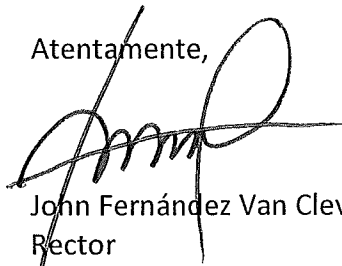
Según la descripción de las cualidades que el Comité de Consulta Docente menciona sobre el doctor Seguel, éste reconoce muy bien los problemas serios que tiene el Recinto en la burocracia de los procesos administrativos y propone alternativas viables que podrían agilizar esos procesos. Indican además, que dada la pericia del doctor Seguel en el área de las ciencias de cómputos, éste ofrece oportunidades especiales para mejorar dramáticamente los aspectos administrativos utilizando conceptos que definió como "la inteligencia del negocio" preservada en el programado del recinto.

El doctor Seguel tiene un estilo participativo de comunicación y ha establecido una buena relación de trabajo con la Vicepresidencia de Asuntos Académicos lo cual ha logrado una buena receptividad a los planteamientos del recinto en este nivel.

Por estas razones, hago mía las recomendaciones de los comités y elevo tanto a usted como a la Junta de Gobierno el nombre del Dr. Jaime Seguel para la posición de Decano de Asuntos Académicos en propiedad.

Agradezco sus gestiones sobre este particular.

Atentamente,



John Fernández Van Cleve, Ph.D.
Rector

Anejos

JAIME SEGUEL

University of Puerto Rico at Mayagüez

Personal Data

Highest Academic Degree	PhD in Mathematics, CUNY – 1987
Citizenship	Born in Chile, Naturalized USA citizen
Fields of Interest	Bioinformatics, Computing Theory and Systems

Academic Appointments

Instructor	Universidad de Santiago, Chile	1979 - 1981
Assistant Professor	Universidad del Norte, Chile	1981 - 1983
Assistant Professor	Saint John's University, New York	1987 - 1988
Tenured Professor	University of Puerto Rico at Mayaguez	1988 - present

Administrative Positions

Director of Graduate Studies	University of Puerto Rico at Mayaguez	1998 – 2000
Coordinator	Doctoral Program in CISE – UPRM	2000 – 2005
Associate Dean for Academic Affairs	College of Engineering – UPRM	2007 – 2009
Dean of Engineering	College of Engineering - UPRM	2010 – 2012
Acting Dean of Academic Affairs	University of Puerto Rico at Mayaguez	2013 - present

Committee and Academic Senate Services

Academic Senate	Faculty of the College of Engineering – UPRM	1998 – 2000
Personnel Committee	Electrical and Comp. Engineering – UPRM	2000 – 2005
Ad-Hoc Committee for PhD in CISE	President, College of Engineering and College of Arts and Sciences – UPRM	1997 – 2000
Ad-Hoc Committee PhD Bioengineering	Member, designated by the Dean of Engineering - UPRM	2005 – 2006
Computing Systems Committee	Electrical and Computer Engineering Department – UPRM	2006 - present

Other Professional Service

Reviewer for

IEEE Transactions on Signal Processing
IEEE Transactions on Parallel and Distributed Computing
Journal of Supercomputing
Member of INSTEEC Scientific Committee
Member IEEE

Research Grants

2013	PI	LM-IRAD ¹ : "Synthetics Biology for Energy"	\$50,000
2012	PI	LM-IRAD: "Complex Adaptive Systems for Energy"	\$150,000
2011-2015	PI	NIH-MARC: "Bioinformatics at Minority Institutions"	\$300,000
2011	PI	LM-IRAD: "Mission Cloud: Health Informatics"	\$100,000
2010	PI	LM-IRAD: "Mission Cloud: Incident Management"	\$100,000
2009	PI	LM-IRAD: "Open Source Cloud Computing"	\$75,000
2006-2010	PI	NIH-MARC: "Assisting Bioinformatics Efforts at Minority Schools"	\$300,000
2004-2009	Co-PI	NSF-MII: "Wide-area, Large-scale Automated Information Processing"	\$3,600,000
1999-2004	Co-PI	NSF-MRI: "A Program for Research in Computing and Information Sciences and Engineering"	\$3,600,000
1999-2003	PI	NIH-MBRS: "A Universal Crystallographic FFT Package"	\$280,000
1994-1997	Co-PI	NSF-MRI: "Infrastructure for Computer Science in Puerto Rico II"	\$800,000
1994-1997	Co-PI	NSF-RIMI: "Students Research and the Computational Mathematics Group"	\$400,000
1992-1994	Co-PI	NSF-MRI: "Infrastructure for Computer Science in Puerto Rico I"	\$250,000
1992-1994	Coll.	NSF-EPSCOR II: "Computational Mathematics Group"	NA

Peer Reviewed Publications

- 1 S. Navarro, **J. Seguel**. "Non-Archimedean gDF Spaces and Continuous Functions". Jo. of Comp. Analysis, Func. Analysis and Approx. Theory, North-Holland, pp. 261-272 (1986).
- 2 **J. Seguel**, D. Bollman, V. Celis. "An Efficient Parallel Algorithm for Bit-Reversal". Congressus Numerantium 79, pp 244-250 (1990).
- 3 **J. Seguel**, J. Barety. "Matrix Algebra and Hypercube Parallel Transmissions". Proc. IMAC'91, Vol. 2, pp. 787-798 (1991).
- 4 **J. Seguel**, F. Novoa, C. Sanmiguel. "A SISAL Code for Computing the Discrete Fourier Transform on S_n ". Proc. 2nd SISAL Users Conference, pp. 1 - 7, LLNL, Livermore (1992).
- 5 D. Bollman, C. Sanmiguel, **J. Seguel**. "Implementing FFTs in SISAL", Proc. 2nd SISAL Users Conference, pp. 56-62, LLNL Livermore (1992).
- 6 **J. Seguel**, C. Sanmiguel "Addressing Schemes for Prime Factor FFTs and Their Use in Large Scale FFT Design". Num. Methods in Eng. and App. Sciences, H.Adler, J. Heinrich, S. Lavanchy, E. Oñate, D. Suárez, eds. Ed. Cimne, Barcelona, Vol. 2, pp. 788-795, (1992).
- 7 **J. Seguel**. "Even and Quarter-Even Prime Length Symmetric FFTs and their SISAL

¹ LM-IRAD: Lockheed Martin Internal Research and Development Fund. This is an annual competitive fund provided by Lockheed Martin to university research and development projects of particular interest for the corporation.

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- Implementations*". Proc. SISAL'93 Lawrence Livermore Nat. Lab., pp. 18-24 (1993).
- 8 D. Rodriguez, **J. Seguel**, E. Cruz. "*Algebraic Methods for the Analysis and Design of Time-Frequency Signal Processing Algorithms*". Proc. Of the IEEE Int. Symp. on Circuits and Systems, pp. 196-199, Chicago (1993).
 - 9 **J. Seguel**, D. Bollman. "*Fast Digit-Reversal Algorithms on a Shared Memory Machine*" Journal of Parallel Computing, Vol. 20, pp. 93-99 (1994).
 - 10 **J. Seguel**, J. Barety, H. Figueroa. "*Mathematical Models Supporting Algorithm Design in SIMD Multiprocessing Systems*". Proc. IEEE/SISCAP pp. 100-105 (1994).
 - 11 **J. Seguel**, F. Palominos, R. Santander. "*On the Design of a Package for Computing Fast Trigonometric Transforms of Variable Size*". Proc. Of the Int. Conf. of the Chilean Computer Society, pp. 89-100 (1994).
 - 12 D. Rodriguez, **J. Seguel**. "*On the Implementation of Time-Frequency Algorithms for Chirp Signal Analysis*". Proc. IEEE/SISCAP pp. 188-193 (1994).
 - 13 **J. Seguel**. "*Prime-length Symmetric FFTs and their Computer Implementation*". Computer Science 2: Research and Applications, Plenum Press, pp. 57-65 (1994).
 - 14 **J. Seguel**, D. Bollman, J. Feo. "*Digit-index Permutation Algorithms for FFT Computations: An Applicative Approach*". Proc. High-Performance Computing Int. Conf., pp. 97-104, San Diego (1995).
 - 15 A. Purkayhasta, **J. Seguel**. "*Efficient Algorithms for Some Specific FFTs on a Massively Parallel Computer*". Proc. 7th International SIAM Conf. on Parallel Processing for Scientific Computing, pp. 21-26 (1995).
 - 16 D. Bollman, **J. Seguel**, J. Feo. "*Fast Digit-Index Permutations*", Journal of Scientific Programming, Vol. 5, No. 2, pp. 137-146 (1996).
 - 17 **J. Seguel**, A. Rivera. "*An Efficient Algorithm for Computing Digit-Reversal Cycles*". Congressus Numerantium 121, pp. 117-122 (1996).
 - 18 **J. Seguel**, J. Ortiz. "*Parallel Prime Edge-length Multidimensional Symmetric FFTs*". Proc. 8th SIAM Conf. on Parallel Processing for Scientific Computing, Minneapolis (1997).
 - 19 **J. Seguel**. "*Some Further Studies on Fast Trigonometric Transforms*". Proc. SIAM 4th International Conference on Mathematical and Numerical Aspects of Wave Propagation, pp. 712-714, Golden, Colorado (1998).
 - 20 **J. Seguel**, F. Palominos, R. Santander. "*A Modified Bluestein FFT*". Proc. Colloquia High-Performance Computing, Petropolis, Brazil (1998).
 - 21 D. Bollman, **J. Seguel**, J. Feo. "*A Functional Approach to Radix-r FFTs*". Journal of Parallel and Distributed Computing Practices, Vol.1, No. 1 pp. 51-74 (1998).
 - 22 **J. Seguel**, S. Castro, R. Piñeiro. "*A Highly Accurate Multithreaded Integration Method*". Proc. 9th SIAM Conf. on Parallel Processing for Sc. Computing, San Antonio (1999).
 - 23 Y. Humaran, **J. Seguel**. "Twiddle Factor Elimination in Multidimensional FFT's". Proc. CRC'99, (1999). Available: <http://ece.uprm.edu/cecord/crc/crc99/papers/yuitza.pdf>
 - 24 **J. Seguel**, D. Bollman, J. Feo. "*A Framework for the Design and Implementation of FFT Permutation Algorithms*". IEEE Trans. On Parallel and Distributed Systems, Vol. 11, No. 7, pp. 625-635 (2000).
 - 25 D. Bollman, **J. Seguel**. "*Efficient Parallel Algorithms for Multidimensional FFTs with Prime Edge-length*". Proc. SIAM 2000, Rio Grande, Puerto Rico (2000).
 - 26 **J. Seguel**. "*A Unified Treatment of Compact Symmetric FFT Code Generation*". IEEE Trans. On Signal Processing, Vol 50, No. 11 pp. 2789-2797 (2002).
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- 27 **J. Seguel**, D. Bollman, E. Orozco. "*A New Prime Edge-Length Crystallographic FFT*". Elsevier Lecture Notes in Computer Science, Vol. 2330, pp. 548-557 (2002).
 - 28 **J. Seguel**. "*Design and Implementation of a Parallel Prime Edge-length Symmetric FFT*". Elsevier Lecture Notes in Computer Science, Vol. 2667, pp. 1025-1034 (2003).
 - 29 **J. Seguel**, D. Burbano. "*A Parallel Prime Edge-Length Crystallographic FFT*". Elsevier Lecture Notes in Computer Science, Vol. 2650, pp. 602-611 (2003).
 - 30 **J. Seguel**, D. Burbano. "*A Scalable Crystallographic FFT*". Elsevier Lecture Notes in Computer Science, Vol. 2840, pp. 134-141 (2003).
 - 31 **J. Seguel**, D. Rodriguez. "*The Doctoral Program in Computing and Information Sciences and Engineering of the University of Puerto Rico*" Future Generation Computing Systems, Special Issue on Selected Papers from the Workshop on Education in Computational Sciences ICCS 2002; Vol. 19, pp. 1293-1298, (2003).
 - 32 L. de la Torre, **J. Seguel** "*A Comparison of Two Master – worker Scheduling Methods*" Proc. IEEE CS High Performance Computing Conference, pp. 597 – 602, (2009).
 - 33 **J. Seguel**, M. Cabrera. "*A Minor in Bioinformatics within the Engineering Curricula*". Proc. Int. Conf. on Front. in Ed.: Comp. Sc. and Comp. Eng., pp. 68-74, Las Vegas (2009)
 - 34 L. de la Torre, **J. Seguel** "*A Parallel Biosequence Motif Discoverer Based on Dynamic Programming and Adaptive Scheduling*" Proc. WORLDCOMP 09, pp. 145-150 (2009).
 - 35 L. de la Torre, **J. Seguel** "*A Parallel Needleman-Wunsch-Hirschberg Bio-sequence Alignment Algorithm*" Proc. 2010 Int. Conf. on Scient. Computing, pp. 269-272 (2010).
 - 36 **J. Seguel**, Y. Torres "*Identifying Highly Conserved Blocks in Families of Biosequences Through Selective Extensions*" Proc. BIOCAMP 2010, Vol. 1, pp 311-314, (2010).
 - 37 M. Rodriguez, **J. Seguel**, M. Greer "*Open Source Cloud Computing Tools: A Case Study with a Weather Application*". Proc. of IEEE Conf. on Serv. Comp., Cloud, Miami (2010).
 - 38 **J. Seguel**. "*Developing Undergraduate Bioinformatics Programs*", Proc. of the 2010 Int. Conf. on Frontiers in Education: Comp. Sci. and Comp. Eng.; pp. 146 – 149 (2010).
 - 39 M. Castro-Sitiriche, E. O'Neill-Carrillo, C. Papadopoulos, C. Pomales-García, A. Santiago-Román, **J. Seguel** "*Leveraging Accreditation Activities to Foster Innovation in Engineering Education*" Frontiers in Education Conference, Washington (2010).
 - 40 M. Lluberés, **J. Seguel**, J. Ramirez-Vick "*Markov Model Checking of Probabilistic Boolean Network Representations of Genes*" Proc. of the 2011 Int. Conf. on Bioinformatics and Computational Biology, Vol. I, pp 63 – 67 (2011).
 - 41 M. Cabrera, **J. Seguel**, P. Ortiz. "*Building the Biological and Statistical Background for Bioinformatics in Engineers at UPRM*". Proc. Of The 2011 International Conference on Frontiers in Education: Computer Science and Computer Engineering (2011).
 - 42 E.M. Rivera, M.L. Sanchez-Pena, C.E. Isaza, **J. Seguel**, M. Cabrera "*Linear Models and Biomarker Search with Microarray Data*" Proc. 2011 International Conference on Bioinformatics and Computational Biology, Vol I, pp 126 – 130 (2011).
 - 43 **J. Seguel**, C. Torres "*Parallelization of Needleman-Wunsch String Alignment Method*" Proc. of the 2011 International Conference on Bioinformatics and Computational Biology, Vol I, pp 239 – 244 (2011).
 - 44 M. Rodriguez-Martinez, **J. Seguel**, M. Sotomayor, J. P. Aleman, J. Rivera, M. Greer, "*Open911: Experiences with the Mobile Plus Cloud Paradigm*", Proc. Of the 4th IEEE Cloud Computing Conference, Washington, DC (2011).
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- 45 M. Rodriguez, H. Valdivia, **J. Seguel**, M. Greer “*Estimating Power/Energy Consumption in Database Servers*” Elsevier Procedia Computer Sciences 6, Vol 1, pp 112-117 (2011).
- 46 M. Rodriguez, H. Valdivia, J. Rivera, **J. Seguel**, M. Greer, “*MedBook: A Cloud-based Healthcare Billing and Record Management System*” Proc. 5th International Conference on Cloud Computing, IEEE Cloud 2012, pp. 899-905, Hawaii (2012).
- 47 M. Greer, M. Rodriguez, **J. Seguel**. “*Classification of MRI Images for Alzheimer's Disease Detection*”. Proc. Of the ASE/IEEE Int. Conf. in Biomedical Comp., Washington DC (2013).
- 48 M. Greer, M. Rodriguez, **J. Seguel**. “*Complex Adaptive Systems Drive Innovation in Synthetic Biology*”. Elsevier Procedia Computer Sciences 20, pp. 385-390 (2013).
- 49 **J. Seguel**, M. Llubes. “*Semantics and Accuracy of Gene Expression Threshold Algorithms. A Case Study*”. Proc. ADVCOMP 2013, Portugal (2013). – **BEST PAPER AWARD**.
- 50 **J. Seguel** “*Mathematics of the Design of a Parallel Mapping Assembly Algorithm*”. Proc. BIOINFORMATICS 2014, pp. 221-226, Angers, France (2014).
- 51 **J. Seguel** “*Multi-algorithmic Approaches to Gene Expression Decision*” conditionally accepted for publication in BIOSTEC, 2015
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Student's Research Advisory

Undergraduate Research Project Adviser for

Harold Figueroa	Johanna Ortiz	Roberto Piñeiro
Angel Rivera	Carlos Torres	
Armando Ortiz	Yaisiel Torres	

Masters Thesis Adviser for

Raul Madrid	Armando Vega	Yuitza Humaran
Veronica Celis	Brenda Degro	Daniel Burbano
Constanza Sanmiguel	Wilmer Garzon	Ivan David
Fernando Novoa	Juan Aleman	
Patricia Hernandez	Johanna Ortiz	

Doctoral Dissertation Adviser for

Luis de la Torre	Pedro Rivera	Marie Llubes
William Navas	Wilfredo Lugo	Hiva Samadian