Curriculum Vitae of Sylwester Przybyl

NAME	Sylwester Przybyl
DATE OF BIRTH	31 December, 1972
PERMANENT EMPLOYMENT	Poznan University of Technology, Poznan, Poland
POSITION	Assistant professor

Scientific and academic grades

GRADE	PLACE	FIELD	YEAR
M.Sc.	Poznan University of Technology, Poland	physics	1997 (1992-1997)
Ph.D.	Poznan University of Technology, Poland	physics	2001 (1997-2001)

Curriculum

I was born on December 31, 1972 in Godziesze Wielkie. Having passed the maturity examination I entered the Technical Physics studies at the Poznan University of Technology. My diploma work "Wpływ ciśnienia na temperaturę krytyczną nadprzewodników wysokotemperaturowych" was devoted to the physics of high temperature superconductors. Then, under the supervision of prof. Piotr Pieranski I started to work on my PhD thesis. The thesis "*Węzły idealne i ich własności"* ("*Ideal knots and their properties*") was defended on December 20, 2001.

On October 1, 2001 I was employed as an assistant at the Department of Technical Physics.

My main scientific interests are devoted to the geometry and physics of the ideal knot.

My main didactic duties concerned programming. I organized a didactic computer laboratory and I prepared a set of exercises for students who want to learn progamming techniques.

I supervised 11 M.Sc (2004-2010) and 4 B.Sc. (2010-2012) students to completion.

I am married.

I have 1 child.

Publication list - international journals

1. M. Krupski, J. Stankowski, S. Przybyl et al. *The effect of the YBCO-PST composite on the superconducting carrier concentration determined by microwave studies under high pressure*, Physica C 320 (1999) 120-126.
2. S. Przybyl and P. Pieranski, *Helical close packings of ideal ropes*, Eur. Phys. J. E 4, 445 (2001).
3. P. Pieranski and S. Przybyl, *Ideal trefoil knot*, Phys. Rev. E 64, 031801 (2001).
4. P. Pieranski, S. Przybyl and A. Stasiak, *Tight open knots*, Eur. Phys. J. E 6, 123 (2001).
5. P. Pieranski and S. Przybyl, *Quasi-quantisation of writhe in ideal knots*, Eur. Phys. J. E 6, 117 (2001).
6. J. Baranska, P. Pieranski, S. Przybyl and E.J. Rawdon, *Length of the tightest trefoil knot*, Phys. Rev. E 70, 051810 (2004).

7. J. Baranska, S. Przybyl, and P. Pieranski *Curvature and torsion of the tight closed trefoil knot*, Eur. Phys. J. B 66, 547 (2008).
8. S. Przybyl and P. Pieranski *Tightening of the elastic overhand knot*, Physical Review E 79, 031801 (2009).
9. M. Modlinski, S. Przybyl and P. Pieranski, *The average shape of the closed trefoil knot fluctuating on a floppy rope*, Eur. Phys. J. E 36, 1 (2013)**.**
10. S. Przybyl and P. Pieranski, *High resolution portrait of the ideal trefoil knot*, J. Phys. A: Math. Theor. 47 (2014) 285201.

Published conference talks

1. P. Pieranski and S. Przybyl, *In Search of the Ideal Treofil Knot*, post conference monograph: AMS Special Session on Physical Knotting and Unknotting, Las Vegas, Nevada, April 21-22, 2001, editors: Jorge Alberto Calvo, Kenneth C. Millett, Eric J. Rawdon, American Mathematical Society, Providence, Rhode Island, 2002.

Polish journals

1. S. Przybył, P. Pierański, *Poszukiwanie węzłów idealnych III - zastosowanie języka Maple V.4 do problemu ciasnego skręcenia lin*, Pro Dialog 6, 87 (1998).

Conference participation - selected

1. "Workshop on morphology of surfaces and interfaces in soft matter: Fundamentals and applications". 24-27.07.2003 Jadwisin, Poland. Poster: S. Przybyl, J. Marchwiak, P. Pieranski "*Closely packed helices*".
2. "Knots and Links: From Form to Function", Pisa, Italy, 2-8.07.2011. Poster: S. Przybyl "*Forces and momenta of forces within the most tight trefoil knot*".
3. "Conference on geometric and physical knot theory: CURVATURE-APPLICATIONS-KNOTS-ENERGIES", Leipzig, Germany, 26-28.03.2014. Invited lecture: S. Przybyl "*The shape and curvature of the twisted clasp*".
4. "Significance of Knotted Structures for Function of Proteins and Nucleic Acids", Warsaw, Poland, 17-21.09.2014. Poster: S. Przybyl *"Discontinuities and singularities in the structure of the most tight trefoil knot"*.

Scientific internship

1. Two weeks stay at the Technical University of Denmark; Department of micro- and nanotechnology, Lyngby, Denmark, 15-26.10.2012.