

Institute of Informatics

2016—2020

Damian Niwiński: general information

Łukasz Kowalik: research

Aleksy Schubert: teaching

Faculty. Scientific degrees

year	professor	doctor habil.	doctor (PhD)	master sci.
2016	16	15	52	10
2017	16	16	52	13
2018	14	16	54	18
2019	15	19	63	23
2020	16	24	58	21

new professor titles: 2⁺

new habilitations: 12⁺

Faculty. Positions (in Polish)

rok	prof. zwycz.	prof. ndzw. (UW)	docent	adiunkt + nauk.
2017	10	17	4	26 + 14
2018	9	17	4	23 + 19
	profesor	prof. uczelni		adiunkt
2019	15	13	4	62

rok	(st.) wykł.	(st.) asystent + nauk.
2017	11	2 + 13
2018	12	1 + 14
	st. asystent	asystent
2019	4	22

New assistant professors (**adiunkt**) hired in the competition procedure

2016 6

2017 2

2018 4

2019 2

2020 1

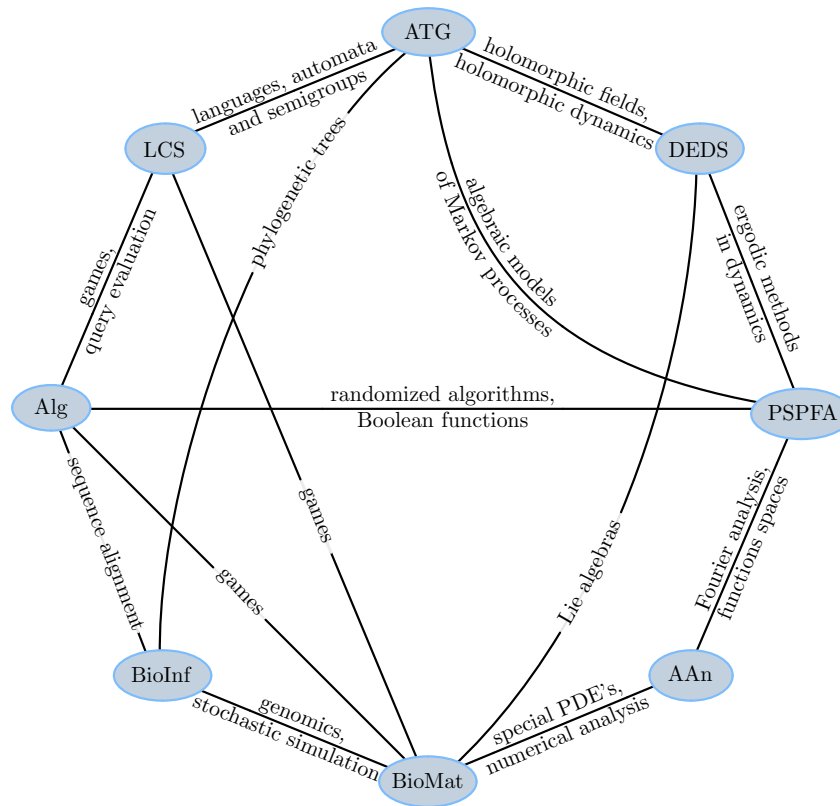
Total 15

Bad news: **Not enough!**

Good news: **8** newcomers received PhD from other Universities (5 abroad).

Institute within the Department — axes of collaboration

KNOW proposal (2012), designed by J. Wiśniewski



Faculty colloquium! *Delta* magazine. What next?

Research in Institute of Informatics 2016-2019

Łukasz Kowalik

September 2020

Agenda

1. Publications
2. Grants
3. Awards
4. PhD studies
5. Money

Where do we publish? Conferences (2016-2019)

top counters		A* rank		A rank	
SODA	19	SODA	19	ESA	19
ESA	19	LICS	15	ICALP	17
ICALP	17	AAAI	13	STACS	13
LICS	15	AAMAS	8	MFCS	7
STACS	13	IJCAI	8	FOSSACS	5
AAAI	13	EC	4	CONCUR	4
IJCAI	8	FOCS	4	WG	4
AAMAS	8	CCS	3	APPROX	3
CPM	7	STOC	3	ISAAC	3
EUNIS	7	CRYPTO	2	ECAI	2
MFCS	7	PODS	2	EWSN	2
FedCSIS	7	POPL	2	ICDCS	2
IJCRS	7	CVPR	1	FCT	1
Big Data	6	KR	1	IPCO	1
SPIRE	5	WWW	1	TCC	1
FOSSACS	5				

Where do we publish? Most frequent journals

Theoretical Computer Science	19
Algorithmica	15
Logical Methods in Computer Science	14
Fundamenta Informaticae	13
ACM Transactions on Algorithms	10
Information Processing Letters	6
Information and Computation	6
Theory of Computing Systems	6
Bioinformatics	5
IEEE/ACM Transactions on Computational Biology...	5
SIAM Journal on Computing	5
ACM Transactions on Computation Theory	5
Artificial Intelligence	5

Where do we publish?

Top journals (according to MNiSW...)

SIAM Journal on Computing	5
Artificial Intelligence	5
Bioinformatics	5
Journal of the ACM	4
Nucleic Acids Research	4
Information Sciences	3
Journal of Economic Theory	2
Nature Communications	2
Angewandte Chemie - International Edition	1
Blood	1
Chem	1
European Urology	1
IEEE Transactions on Fuzzy Systems	1
Molecular Cell	1

Where do we publish?

Second tier journals (according to MNI SW...)

ACM Transactions on Algorithms	10
IEEE Intelligent Systems	3
Journal of Artificial Intelligence Research	3
Analytical Chemistry	3
BMC Genomics	2
Journal of Combinatorial Theory. Series B	2
Fuzzy Sets and Systems	2
ACM Transactions on Intelligent Systems and Te...	2

+20 × 1.

Observations

- Large groups (algorithms, automata, biology) still strong,
- Growing game theory group (33 A* papers!)
- Successes of ML group (NeurIPS, ICLR, CVPR papers)
- Publications in top journals outside CS:
 - biology/medicine (Blood, Plant J.,...)
 - math (J. Combinatorial Th. B)
 - economics (J. Economic Theory)
 - political sciences (J. Theoretical Politics)

New International Grants

ERC grants:

- Ma. Pilipczuk (starting, 2016),
- P. Sankowski (consolidator, 2017),
- S. Dziembowski (advanced, 2019),
- W. Czerwiński (starting, 2020),
- Mi. Pilipczuk (starting, 2020)

Other:

- E. Szczurek, European Training Network (EC), 2017.

New National Grants

NCN grants:

- OPUS

2017 N. Dojer, T. Michalak;

2018 P. Górecki, S. Lasota, K. Rządca, A. Szałas;

2019 M. Dziubiński, A. Gambin, Ł. Kozłowski, H. Michalewski,
O. Skibski, P. Skowron;

2020 K. Iwanicki, E. Kopczyński, E. Szczurek, S. Lasota

- SONATA

2017 N. Chung, P. Hofman, S. Toruńczyk;

2018 L. Clemente, M. Startek, A. Zych-Pawlewicz,

2019 J. Radoszewski;

2020 K. Dutta

- SONATA BIS: P. Parys (2017); F. Murlak (2019)

- HARMONIA: A. Gambin (2019)

Other grants:

- FNP POWROTY. M. Machnicka (2017)

- NAWA POLSKIE POWROTY. J. Cyranka(2019)

International Awards

- **STOC** 2019 best paper award (W. Czerwiński, S. Lasota)
- ACM SIGMOD Research Highlight Award 2017 (W. Czerwiński, P. Parys)
- ERCIM Cor Baayen Award 2016: Mi. Pilipczuk
- Other Best Paper Awards: **IPEC** 2016 (A. Giannopoulou, Mi. Pilipczuk, J.-F. Raymond and M. Wrochna), **Petri Nets** 2016 (J. Sroka), **DFRW** 2016 (A. Socała), **ESA** 2017 (M. Cygan, Ł. Kowalik, A. Socała), **SPIRE** 2017 (J. Radoszewski), **DCOSS** 2018 (K. Iwanicki, A. Paszkowska), **ESA** 2018 (A. Karczmarz), **SIPRE** 2018 (T. Kociumaka, J. Radoszewski, J. Straszyński), **LATA** 2018 (T. Kociumaka, J. Radoszewski, W. Rytter, T. Waleń), **MFCS** 2019 (P. Parys), **WG** 2020 (Mi. Pilipczuk, K. Węgrzycki), **MFCS** 2020 (M. Bojańczyk, J. Schmude), **ICALP** 2020 (L. Clemente, P. Parys)

Selected National Awards

- **NCN Awards**: M. Bojańczyk (2016), P. Sankowski (2018)
- **Kryształowa Brukselka**: M. Bojańczyk (2016), P. Sankowski (2018)
- Polish-German **Copernicus Award**: S. Dziembowski (2020)
- **Lipski Award**: T. Gogacz, M. Skrzypczak (2016), T. Kociumaka (2018), M. Włodarczyk (2019).
- **MNiSW Scholarship** for outstanding young scientists: Ma. Pilipczuk (2016), M. Machnicka, J. Radoszewski (2017), W. Czerwiński, P. Skowron (2018), M. Skrzypczak (2019), P. Biliński (2020).
- **Prime minister** award for PhD thesis: M. Wrochna (2019).

PhD students

Current students:

Year	Number
1.	5*
2.	10*
3.	22
4.	21
5+.	29

Awarded PhDs:

Year	Number
2019	7
2018	6 + 3**
2017	6 + 1**
2016	10 + 3**
2015	10 + 2**
2014	7 + 4**

* Change of law: introducing Doctoral School

** Students from other universities

Year	BST	DSM	KNOW	Subwencja	Total
2016	39,9	151,9	50		241,9
2017	107	158,2			265,5
2018	46	151,1			197,1
2019				143,2	143,2

(all amounts in thousands of PLN)

Main categories of costs:

- Mobility (conference travels, research visits, guests)
- Computers
- PhD Open (DSM money)
- Publishing

Institute performance bonus budget ('kwanty')

Monthly salary bonus for researchers awarded each year based on:

- publications,
- obtaining grants,
- supervising PhD students and leading research groups,
- awards,
- PC membership, organizing conferences, etc.

year	total yearly amount (thousands PLN)
2016/17	579,6
2017/18	648
2018/19	500,4*
2019/20	594*

* beginning from 2019, there is additionally a faculty competition for performance bonus for scientific activities

Teaching in Institute of Informatics in years 2016-2020

Aleksy Schubert

September 10, 2020

Teaching components

- informatics
- bioinformatics
- teaching services for other UoW units
 - mathematics (OOP&C++, DB, partially ItCS)
 - kognitywistyka (E-learning, OOP&D, AI, ItCS)
 - ekonomia (Alg, Multidimensional Analysis)
 - various majors – information technologies
- future activities:
 - machine learning studies, AI-Tech
 - HackerU
 - teaching of algorithmics for teachers

Candidates and admitted for bachelor's degree studies

	2016	2017	2018	2019	2020
candidates	999	1067	1140	1033	1331
qualified	235	250	234	252	275
admitted	183	177	178	175	184
admitted/qualified	78%	70%	76%	69%	67%

The course of the bachelor's degree studies

- The number of students on the first year: ca 150
- The number of students in the following years: ca 120

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	2016	2017	2018	2019
1st year	157	151	145	143
2nd year	134	118	143	
3rd year	122	97		

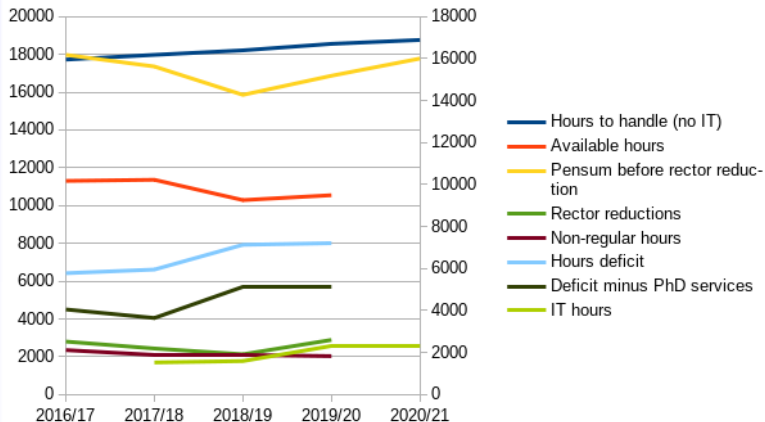
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- ...
- Small reform of the programme
- **Achievements in ACM competitions!!!**
- Difficulties in finding teachers:
 - Introduction to programming
 - Individual programming project
 - Object-oriented programming
 - Concurrent programming
 - Operating systems
 - Programming languages and paradigms
 - Computer networks
 - Web applications
 - Security of computer systems
 - Software engineering

Pensum management

	2016/17	2017/18	2018/19	2019/20	2020/21
Hours to handle (no IT)	17725	17975	18214	18557	18762
Pensum before rector reductions	16176	15622	14271	15181	16001
Rector reductions	2520	2190	1915	2600	2426
Non-regular hours	2350	2069	2067	1532*(+500)	1035*
Available hours	11306	11363	10289	11048*(-500)	12540*
Hours deficit	6419	6612	7924	7508*(+500)	6221*
Deficit minus PhD services	4499	4047	5716	5183*(+500)	4931*
IT hours	–	1695	1770	2580	2550

Pensum management



Bacalaureate theses

- Developed during *Team programming project*
- TPP is something we should gain more publicity with
- The numbers of submitted theses

Year	No of th.	↦ No of s.	No of staff
2015/16:	22	↦ 83	8
2016/17:	27	↦ 103	8
2017/18:	30	↦ 114	9
2018/19:	30	↦ 110	9
2019/20:	24	↦ 102?	9

Candidates and admitted for master's degree studies

	2016	2017	2018	2019	2020
candidates	146	153	194	170	133
qualified	117	96	117	130	85
admitted	88	77	92	105	72*
admitted/qualified	75%	80%	79%	81%	–

The course of master's degree studies

- No of the students on a year, ca 100

	2016	2017	2018	2019
I rok	107	98	101	121
II rok	87	107	104	

- Healthy number of seminars (17, +one more in cryptography)
- Healthy number of monograph lectures (55-60 per year)
- Medium size reform of programme
- System of recommendations for monograph lectures
- Difficulties in finding teachers
 - Compiler construction
 - lectures in advanced concurrent programming (4)

Master's theses

- Submitted master's theses in computer science

Year	No. of theses	Distribution	No of s-visors
2015/16:	47	$\mapsto 5 \times 1, 3 \times 5, 2 \times 7, 1 \times 11$	24
2016/17:	53	$\mapsto 6 \times 1, 4 \times 1, 3 \times 6, 2 \times 5, 1 \times 14$	27
2017/18:	44	$\mapsto 4 \times 4, 3 \times 1, 2 \times 4, 1 \times 16$	25
2018/19:	50	$\mapsto 5 \times 1, 4 \times 2, 3 \times 3, 2 \times 4, 1 \times 17$	27
2019/20:	26	$\mapsto 6 \times 1, 5 \times 1, 3 \times 2, 1 \times 7$	11

- Submitted master's theses in computer science . . .
- Two staff members supervised submitted theses in all 5 years:
dr J. Jabłonowski, prof. J. Tyszkiewicz
- Eight staff members supervised in 4 years:
dr. A. Janusz, dr. hab. A. Schubert, dr. hab. K. Iwanicki,
dr. J. Sroka, dr. J. Mincer-Daszkiewicz, dr. M. Peczarski,
dr. T. Michalak, prof. J. Madey
- Sukcesy w konkursach na najlepszą pracę magisterską PTI:
 - dr hab. Konrad Iwanicki (I place)
 - prof. Stefan Dziembowski (II place)
 - prof. Sławomir Lasota (III place)
 - dr hab. Henryk Michalewski (distinguished thesis)

- Main difficulty: too few (decent) candidates, as for our ambitions

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- Candidates in 2019:

	bachelor's	master's
candidates	184	33
qualified	77	23
admitted	30	15
admitted/qualified	39%	65%

- Main difficulty: too few (decent) candidates, as for our ambitions
- Candidates in 2019 (admitted: 30, 15)
- No of students in 2019: 10, 13, 15; 19, 8
- No of theses in 2018/19: 7 (6 supervisors); 8 (6 supervisors)
- Smooth cooperation with coordinator (dr hab. N. Dojer)
- Difficulties in organisation (three faculties)
- One all-faculty subject:
Statistical data analysis

Thank you!