Meeting of the Council of the Institute of Informatics

9th September 2021
Agenda

1. Appointment of a new vice director of research affairs, proposal and voting (ŁK)
2. New faculty members (ŁK)
3. Scientific activity of the Institute (BK)
   3.1. Publications, grants, awards in 2020
   3.2. Evaluation of Computer Science at UW (2017-2021)
   3.3. Results of the admission to the Doctoral School
4. Teaching in the Institute (AJ)
   4.1. Online teaching
   4.2. Evaluation of CS studies by Polish Accreditation Committee
   4.3. New master programme: Machine Learning
   4.4. Challenges and tasks
5. Other business: discussion
New faculty members

- **1 associate professor**
  - Magdalena Stobińska (quantum information)

- **6 assistant professors**
  - Krzysztof Fleszar (algorithms, computational geometry)
  - Jakub Gajarsky (logic, graph algorithms)
  - Tomáš Masařík (algorithms, graph theory)
  - Filip Mazowiecki (automata and logic)
  - Jarosław Paszek (computational biology)
  - Marcin Wrochna (algorithms, graph theory)

- **1 assistant (specialization: information technologies)**
  - Sebastian Gęgotek
## Structure of the Institute

<table>
<thead>
<tr>
<th></th>
<th>2019/20</th>
<th></th>
<th>2020/21</th>
<th></th>
<th>new faculty members</th>
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<tbody>
<tr>
<td></td>
<td>R</td>
<td>R&amp;T</td>
<td>T</td>
<td>R</td>
<td>R&amp;T</td>
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<td>Professor</td>
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<td></td>
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<td>8</td>
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<tr>
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<tr>
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<tr>
<td>Senior Assistant</td>
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<td>19</td>
<td>3</td>
<td></td>
<td>20</td>
<td>2</td>
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<td><strong>∑</strong></td>
<td><strong>82 + 39</strong></td>
<td></td>
<td><strong>82 + 39</strong></td>
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<td></td>
</tr>
</tbody>
</table>

* R = Research, R&T = Research&Teaching; T = Teaching (groups of positions)
## Institutes in MIMUW

<table>
<thead>
<tr>
<th>Institute</th>
<th>Permanent Positions</th>
<th>Short-Term Positions</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inst. Mathematics</td>
<td>78</td>
<td>3</td>
<td>81</td>
</tr>
<tr>
<td>Inst. Informatics</td>
<td>82</td>
<td>39</td>
<td>121</td>
</tr>
</tbody>
</table>
Open Day of Doctoral Studies

- Organized by Stefan Dziembowski and Ł.K. in May 2021
- with help from Basia Poszewiecka, Paulina Szymańska-Róźek, Kamila Łyczek
- ~30 students
- recordings published (see openday.mimuw.edu.pl)
- it was nice to learn what others actually do :)
Institute of Informatics
Summary of Scientific Activities
2020-21
Where we publish: top level

Our top* journal venues in 2020**:

- Applied Soft Computing
- Artificial Intelligence
- Bioinformatics
- Chem
- Genome Biology
- IEEE Trans. on Cybernetics
- Journal of Economic Theory
- Molecular Cell
- SIAM J. on Computing

* worth 200pts according to MEiN
** data taken from EVA reports
Where we publish: top level

Our top* conference venues in 2020**:

- **EC:** ACM C. on Economics and Computation
- **PODS:** ACM C. on Principles of Database Systems
- **STOC:** ACM S. on Theory of Computing
- **SODA:** S. on Discrete Algorithms
- **LICS:** IEEE S. on Logic in Computer Science
- **CVPR:** IEEE C. on Computer Vision and Pattern Recognition
- **AAMAS:** Int. C. on Autonomous Agents & Multiagent Sys.
- **KR:** Int. C. on Princ. of Knowledge Representation and Reasoning
- **AAAI:** Nat. C.. of the Amer. Assoc. for Artificial Intelligence
- **IJCAI:** Int. Joint C. on Artificial Intelligence

* worth 200pts according to MEiN
** data taken from EVA reports
Where we publish regularly

Our most popular good* venues in 2020**: 

<table>
<thead>
<tr>
<th>Venue</th>
<th>No. of papers</th>
</tr>
</thead>
<tbody>
<tr>
<td>- <strong>LICS</strong>: IEEE S. on Logic in Computer Science</td>
<td>6</td>
</tr>
<tr>
<td>- ACM Transactions on Algorithms</td>
<td>5</td>
</tr>
<tr>
<td>- <strong>ESA</strong>: European Symposium on Algorithms</td>
<td>5</td>
</tr>
<tr>
<td>- <strong>AAAI</strong>: Nat. C. of the Amer. Assoc. for Artificial Intelligence</td>
<td>4</td>
</tr>
<tr>
<td>- <strong>ICALP</strong>: Int. Colloq. on Automata, Languages and Programming</td>
<td>4</td>
</tr>
<tr>
<td>- <strong>AAMAS</strong>: Int. C. on Autonomous Agents &amp; Multiagent Sys.</td>
<td>3</td>
</tr>
<tr>
<td>- <strong>CONCUR</strong>: Int. C. on Concurrency Theory</td>
<td>3</td>
</tr>
<tr>
<td>- <strong>MFCS</strong>: Int. Symp. on Math. Foundations of Computer Science</td>
<td>3</td>
</tr>
</tbody>
</table>

* worth 140pts according to MEiN
** data taken from EVA reports
<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>200pts</td>
<td>34</td>
<td>31</td>
</tr>
<tr>
<td>140pts</td>
<td>43</td>
<td>40</td>
</tr>
<tr>
<td>100pts</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>70pts</td>
<td>32</td>
<td>34</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>122</strong></td>
<td><strong>119</strong></td>
</tr>
</tbody>
</table>

(earlier data difficult to compare)
Grants

Major grants running in 2020:

- 5 ERC grants (M. Bojańczyk, M. Cygan, S. Dziembowski, Ma. Pilipczuk, P. Sankowski)
- NCN grants:
  - Opus 17
  - Sonata Bis 2
  - Sonata 5
  - Sonatina 1
  - Preludium 6
  - Harmonia 1
  - Symfonia 2
- FNP grants:
  - Homing 1
  - Team 1
  - Copernicus 1
  - Start 3
- 2 NAWA grants
- 1 EU ITN
- ...

Biggest news in 2021:

- 2 ERC grants (W. Czerwiński, Mi. Pilipczuk)

Numbers stay strong, but many grants end in 2021...
Awards in 2020

- IJCAI Computer and Thought Award: Piotr Skowron
  ... for his contributions to computational social choice, and to the theory of committee elections.

- MNiSW Scholarship for Young Scientists: Piotr Biliński

- Best paper awards:
  ICALP (track B): D. Barozzini, L. Clemente, P. Parys
  WG: Mi. Pilipczuk, K. Węgrzycki
  MFCS: M. Bojańczyk, J. Schmude
  WALCOM: J. Radoszewski, W. Rytter, T. Waleń, W. Zuba
Degrees

2020:

- 3 professorships:
  -- S. Dziembowski
  -- Ł. Kowalik
  -- D. Ślężak

- 9 habilitations:
  -- L. Clemente
  -- W. Czerwiński
  -- E. Kopczyński
  -- P. Parys
  -- J. Radoszewski
  -- M. Skrzypczak
  -- E. Szczurek
  -- S. Toruńczyk
  -- T. Waleń

- 0 PhD degrees (!!!)

2021: (so far)

- 1 professorship:
  -- B. Klin

- 1 habilitation:
  -- J. Pawlewicz

- 3 PhD degrees
Internal funding (2021)

1. Subwencja
   - only 30 kPLN for 2021, as no more was required
   - travel expenses severely limited by the pandemic
   - expense claims for outdated equipment welcome

2. (Institute) Quants
   - approx. 58 kPLN / month, divided among research staff
     based on recent publication record and other achievements

3. IDUB New Ideas
   - a new programme of internal grants (up to 150 kPLN)
   - in 2021, two grants awarded to llnf
### PhD School admissions

#### Admission numbers:

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2021</th>
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</thead>
<tbody>
<tr>
<td>Places available</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>Candidates</td>
<td>29</td>
<td>40</td>
</tr>
<tr>
<td>Offers made</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>16</td>
<td>9</td>
</tr>
<tr>
<td>Informatics</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>Foreign candidates</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Foreign offers</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

The candidate numbers are likely to grow.

The number of **good** candidates - this is less clear.
Evaluation of Research

In January 2022, our publication output in the years 2017-21 will be evaluated.

This is important.

In the Institute, 130 people did research in 2017-21. * On average, this makes approx. 86 people (average $N$).

The Institute should exhibit approx. 260 publications, but each person can only put 4 publication slots.

* All numbers are approximate: data for 2021 are missing.
**Publication volume, again**

Recall publication numbers in 2019 and 2020:

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
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</tr>
</thead>
<tbody>
<tr>
<td>200pts</td>
<td>34</td>
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</tr>
<tr>
<td>140pts</td>
<td>43</td>
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</tr>
<tr>
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<td>13</td>
<td>14</td>
</tr>
<tr>
<td>70pts</td>
<td>32</td>
<td>34</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>122</strong></td>
<td><strong>119</strong></td>
</tr>
</tbody>
</table>

This looks good, but it is an illusion because of the 4 slot limit.
**Contributors to top venues**

Number of people contributing to publications in top venues:

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>200pts</td>
<td>31</td>
<td>22</td>
</tr>
<tr>
<td>140pts</td>
<td>23</td>
<td>30</td>
</tr>
<tr>
<td>100pts</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>60</strong></td>
<td><strong>56</strong></td>
</tr>
</tbody>
</table>

Not everybody publishes in top venues...

*meaning “this but not higher”*
Contributors to top venues “max out” quickly

Until 2020, the following numbers of people published their maximum allowed number of slots for at least $N$ pts. each:

- 10 people for $N=200$,
- 26 people for $N=140$,
- 4 people for $N=100$.

Until 2020, top-venue publications have filled:

- 82 slots for 200pts each,
- 91 slots for 140pts each,
- 14 slots for 100pts each.

Approx. 75 slots still to be filled in 2021 and/or with lower-scoring publications.
Important

In the following months, you may be asked:

- to check your EVA reports from 2017-20 for missing publications

- to provide a list of omissions, and of all your papers published in 2021

- to sign a formal document, allowing UW to include some (perhaps not all!) of your papers in the evaluation

Please do not ignore this!
Teaching in Institute of Informatics

Agata Janowska

September 9, 2021
Online teaching

- Online teaching
  - quite a challenge
  - new teaching materials for students
  - recordings of lectures
  - alternative method of organizing teaching
  - good grades in surveys

- Change of class evaluation survey system
  - emphasis on the attitude towards students
  - more extensive questionnaire
  - fewer student responses
Visit of Polish Accreditation Committee, March 23-24, 2021

Evaluation criteria:

1. Concept of Computer Science studies program
2. Implementation of the study program
3. Admission to studies, verification learning outcomes
4. Competences, experience, qualifications of staff
5. Infrastructure and resources
6. Cooperation with the socio-economic environment
7. Internationalization of the education process
8. Support for students
9. Public access to information about studies
10. Quality policy

All passed!
New program: Machine Learning

- Master degree program (in English)
- Created as a response to the rapidly growing interest in this area
- Part of AI-Tech project (Akademia Innowacyjnych Zastosowań Technologii Cyfrowych)
- Coordinators: Marek Cygan and Aleksy Schubert
ML admission limit: 40
INF2 admission limit - before: 100, now: 70

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
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<td>INF1</td>
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<td></td>
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<tr>
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<td>1140</td>
<td>1097</td>
<td>1247</td>
<td>1172</td>
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<tr>
<td>admitted</td>
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<td>178</td>
<td>192</td>
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<td>INF2</td>
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<td>194</td>
<td>167</td>
<td>149</td>
<td>107+20</td>
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<tr>
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<td>77</td>
<td>92</td>
<td>105</td>
<td>94</td>
<td>62+...</td>
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<td>102+41</td>
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<tr>
<td>admitted</td>
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<td></td>
<td></td>
<td></td>
<td>16+...</td>
</tr>
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</table>
Challenges

Difficulties in finding teachers

- insufficient number of teaching staff in the institute
- few PhD students
- ca. 4,000h from ca. 20,000h is handled by people from outside faculty, students, PhD students in their overtime
Challenges cont.

Students complaining of work overload
- mostly second and third year of BA studies
- growing number of students with mental health problems

„Generalnie nie podoba mi się opinia panująca wśród studentów a także osób z zewnątrz, że nasze studia są wykańczające psychicznie. Parę znajomych osób z liceum pytało się mnie, czy studia na MIM-ie są znośne, bo się zastanawiają, ale słyszel tyle negatywnych opinii na ten temat”

„Dla bardzo wiele osób te studia to walka o przeżycie, a nie nauka”

„Nagromadzenie tylu projektów często powoduje, że przez 2-3 miesiące nie można znaleźć ani jednego wolnego weekendu”
Tasks

- Undergraduate program reform to be introduced in 2022/23
- A kind request to the coordinators to consider reducing the number or size of projects
- Reform of elective courses
  - avoiding incomplete groups
  - ensuring critical fields are covered