



Institute for  
Biomedical Informatics  
University of Cologne



Summer Semester 2025



### AI in Medicine – Talk Series

- Learn about AI methods in medicine with focus on challenges and opportunities
- Each session covers a new practical and self-contained topic

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|--------------|---|
| <b>April</b> | <ul style="list-style-type: none"> <li>• 7. AI Algorithms from the Idea to Bedside (@ZMMK)</li> <li>• 14. Die Zukunft aus Daten lesen: Prognosemodelle in der Medizin (@TRIO)</li> <li>• 28. Zahlen lügen nicht - oder doch? KI-Evaluation auf dem Prüfstand (@ZMMK)</li> </ul>                                       |
| <b>May</b>   | <ul style="list-style-type: none"> <li>• 5. Precision in AI for Medicine: What is it? Where to use? (@ZMMK)</li> <li>• 12. Digital Twins (@TRIO)</li> <li>• 19. Research Data Management (best practices in medicine) (@Online)</li> <li>• 26. Leveraging Large Language Models (LLMs) in Medicine (@ZMMK)</li> </ul> |
| <b>June</b>  | <ul style="list-style-type: none"> <li>• 2. Die transparente Black Box für vertrauenswürdige KI in der Medizin (@ZMMK)</li> <li>• 16. Semantic Web in Medicine (@TRIO)</li> <li>• 23. Exchange Data for AI in Medicine (@TRIO)</li> <li>• 30. FAIR Data in Medicine as AI Enabler (@TRIO)</li> </ul>                  |
| <b>July</b>  | <ul style="list-style-type: none"> <li>• 7. Verteilte Datenanalyse im Gesundheitswesen (@ZMMK)</li> <li>• 14. Ethical aspects of Medical AI applications (@ZMMK)</li> <li>• 21. „Gut dokumentiert“ ≠ „gut nutzbar“: Wie müssen Daten für KI aussehen (@ZMMK)</li> </ul>   |



Mondays 12.15-13.00:

In English or German based on title language



ZMMK, Robert Koch Str. 21, Seminar 2- EG

or

TRIO-Building 66, Seminar room 30

(location depends on talk)

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### Coding Basics in Python – One Day Seminar

- Learn basic programming concepts in Python to evaluate medical and research data
- Learn hands-on to develop and execute your own code
- Optional follow-up Q&A after seminar
- No programming knowledge required!



Wednesdays 14.30-17.00:

- 9th. April (German)
- 16th. April (English)
- 23rd. April (German)



TRIO-Building 66, Seminar room 30

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Continue with specialized topics



### Medical AI – Seminars

- Learn hands-on about medical applications from start to finish

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| <b>May</b>  | 7. Explainable AI for Diabetes Prediction: A Hands-On Seminar with Python (one day)               | Monday: 12. 9:30-15.30  |  |
| <b>May</b>  | 12. From basics to pro: Heart Rate Variability & AI symbiosis in personalized medicine (one day)  | Wednesday: 7. 10:15-15:40                                     |  |
| <b>July</b> | 16. & 23. Vom Datenchaos zur richtigen Krebstherapie – Daten Aufbereitung für KI in der Onkologie | Wednesday: 16. Vorlesung 10:15-12:30<br>23. Übung 10:30-13:30 |  |



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