NWERC 2026

Opening Ceremony

NWERC 2026

28th November 2026



KIT Karlsruhe Institute of Technology

CPUlm

icpc International Collegiate Programming Contest

Who of you...

- ... is experiencing their first NWERC this year?

Who of you...

- ... is experiencing their first NWERC this year?
- ... has already been here last year?

Welcome
to you

Who of you...

- ... is experiencing their first NWERC this year?
- ... has already been here last year?
- ... has also come by bike today?

Together we are:

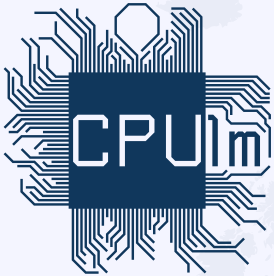
- 141 teams
- 422 participants
- 98 coaches
- 75 institutions
- >100 volunteers and organisers/jury/systems



NWERC 2026 Organisers

KIT & CPUlm & FSMI

Karlsruhe Institute of Technology





NWERC 2026 is organised by the KIT Computer Science Department...

...and would not have been possible without the volunteers from CPUlm and FSMI.

2026 INWERC

Prof. Dr. Oliver Kraft

Vice President
Academic Affairs

KIT
Karlsruhe Institute of Technology



Quiz

NWERC History

How many different cities have hosted NWERC since 1997?

- 13
- 16
- 21

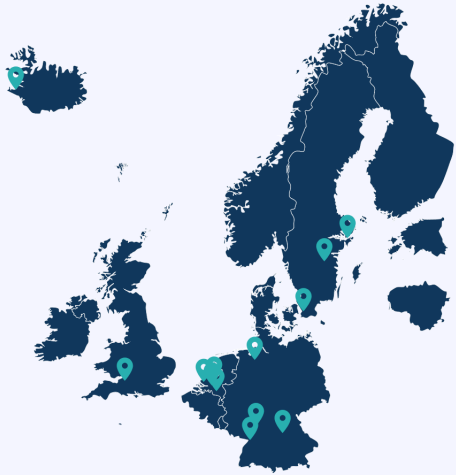
Quiz

NWERC History

How many different cities have hosted NWERC since 1997?

- **13**
- 16
- 21

Bath (2) • Bremen (2) • Darmstadt (2) • Delft (7)
Eindhoven (2) • Karlsruhe (2) • Linköping (2)
Lund (2) • Nürnberg (1) • Reykjavík (2)
’s-Hertogenbosch (2) • Stockholm (2) • Utrecht (2)



NWERC is about:

- Solving challenging algorithmic puzzles.
- Earning balloons and medals.
- Having fun!

But also:

- Getting inspired.
- Meeting people and making new friends.
- Qualifying for the **Europe Championship** and the **World Finals**.

NWERC 2026

Europe Championship 2027

Eindhoven, The Netherlands



- Eindhoven University of Technology
  February 12th – 14th, 2027
- The top 13 institutions will qualify.
  (Only one team per institution.)
- 8 additional slots for the World Finals.
- `https://euc.icpc.global/`

World Finals

- Top two institutions will qualify directly.
- Where/when still unknown.
- `https://wf.icpc.global/`



NWERC 2026

Our Supporters





















2026 NWERC

Veronika Soboleva

ICPC Director of Development

icpc International Collegiate Programming Contest



NWERC 2026

Masha Zyryanova

Education

Project Manager

JETBRAINS



Silviu Vlasceanu

Munich Research Center

HUAWEI



NWERC 2026

Bjorn Magnusson

Quantitative Trader

Jane Street



2026 NWERC

Annalise Field

Campus Recruiter

Jump TRADING



Quiz

Ethernet

How many meters of ethernet cables have been installed in the contest area?

- ca. 500 m
- ca. 1000 m
- ca. 3000 m



Quiz

Ethernet

How many meters of ethernet cables have been installed in the contest area?

- ca. 500 m
- ca. 1000 m
- **ca. 3 000 m**



2026 NWERC

Tech Talks

Section 3



KIT Karlsruhe Institute of Technology

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icpc International Collegiate Programming Contest

Silviu Vlasceanu

Munich Research Center

HUAWEI



How many cereal bars are needed to host an NWERC?

- 11 kg
- 17 kg
- 26 kg

Quiz

Snacks

How many cereal bars are needed to host an NWERC?

- 11 kg
- 17 kg
- **26 kg**



NWERC 2026

Murad Talibov

SWE in JCP

Agent Spawner

JETBRAINS



2026 NWERC

Practical Information

Section 4



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Who is Who?

T-Shirt Colors



- Always wear your T-shirt on top.
- Wear your badge at all times.
  Also during activities.

Awareness
Code of Conduct

Our Code of Conduct

- We want a safe, welcoming, and inclusive environment for everyone.
- Feel free to talk to us or message us at **awareness@2026.nwerc.eu** — anytime.
- Part of the rules: `https://2026.nwerc.eu/rules`



Schumi
(any orga member will connect you)

Bingo

- NWERC is a great place to make new friends.
- Return your cards tomorrow before the contest. (Audimax, after Last Remarks session)
- We will draw a random winner during the award ceremony.



Goodie Bags



NWERC Mug:

- Bring your mug to the contest.
- Bring your mug to the lunch today.
- Coaches: Bring it for coffee on Sunday.

NWERC 2026

Schedule

Saturday

9:00 – 9:30	Opening Ceremony	Audimax
9:30 – 10:30	Tech Talks	Audimax
10:30 – 11:00	Info Practice Session	Audimax
12:00 – 13:30	Test Session	Contest Area
14:30 – 15:00	Q&A Session	**Contest Area**
18:30 – 20:00	Dinner	Dining Hall

Company Market: 11:00 – 18:00 in the Dining Hall foyer

Activities/Sunday schedule: Check the website for detailed times

Lunch
Saturday

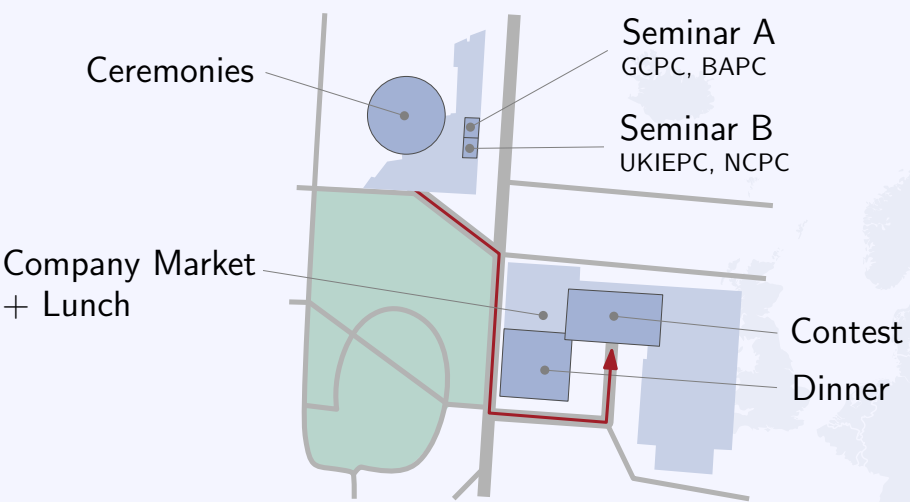
When/where/how:

- From 13:00 – 14:30 in Dining Hall foyer.
- Don’t take lunch to the Contest Area.

Options (both vegan):

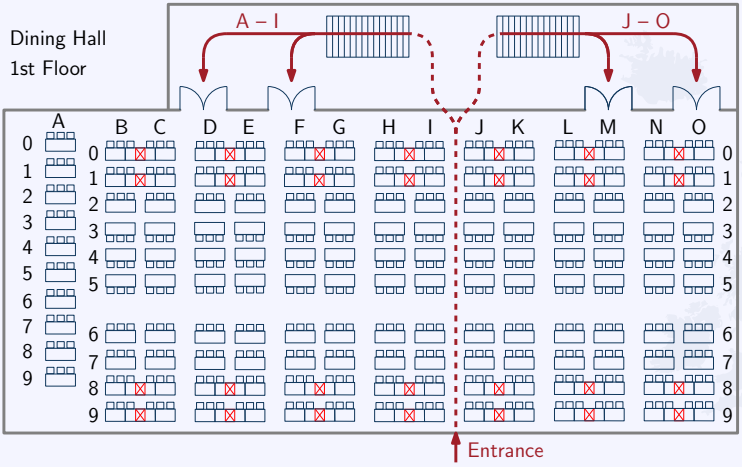
- **Thai Bowl**
  glass noodle salad, edamame, tomatoes, wild herbs, spring rolls and teriyaki cream
- **Lentil Curry**
  with fragrant rice

Campus Map


Ceremonies
Seminar A
GCPC, BAPC
Seminar B
UKIEPC, NCPC
Company Market
+ Lunch
Contest
Dinner

Contest Hall

How to find your desk?



Take correct stairs:

- A – I: left
- J – O: right

Don't go back if you turned wrong.

Your coordinates are on your badge.

Livestream
& Insta Takeover



- `https://nwerc.eu/live`
- Will be shown in Audimax during the contest.
- Streaming team might ask you for interviews.

@KITINFORMATIK

2026 NWERC

Contest Rules

Section 5



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General rules:

- The same rules apply for the Test Session and the Contest!
- All details on the website: `https://2026.nwerc.eu/rules`

- Wear your T-shirt and badge on top.
  No T-shirt or no badge means no entry!

Rules
Before the Contests

Rules:

- Be on time!
- Do not touch the computer, keyboard, mouse or problem set!
- Do not bring bags, jackets, phones, watches, smart glasses, or other unnecessary equipment.
- Do not bring your own paper.
  Own pens are allowed.

Problem set:

- Today: Single copy on your desk.
- Tomorrow: Envelope with three problem sets.

Rules

During the Contests

At your workstation:

- Paper and pens will be provided. (Sunday only)
- Prints will be brought to you.
- Ballons will be brought to you.

Communication:

- Only speak with your teammates.
- Only speak at your workstation.
- Do not speak in the corridors/toilets/snack areas.

Questions?

- Toilets, snacks, directions: Ask a runner.
- About problem set or system: Send a clarification request.

Feeling lost?

- If you don't know what to do or where to start, talk to the jury. They will help you!

Rules

After the Test Session

Leave behind:

- Your Team Reference Documents.
- Your keyboard.
- Pens and mascots.
- Other items allowed by the Jury.

Take with you:

- Your prints.
- Problem statements.
- Any waste.
- Return all bottles into their crates.

Test Session
Coaches

Coaches:

- Allowed 30 minutes after the start.
- Wait on the ground floor before that.
- You can bring phones, etc.

Photos:

- Coaches: Take photos of your team today!
- No coach? Our photographers will be there. Draw their attention to yourselves.

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Systems Introduction

Section 6



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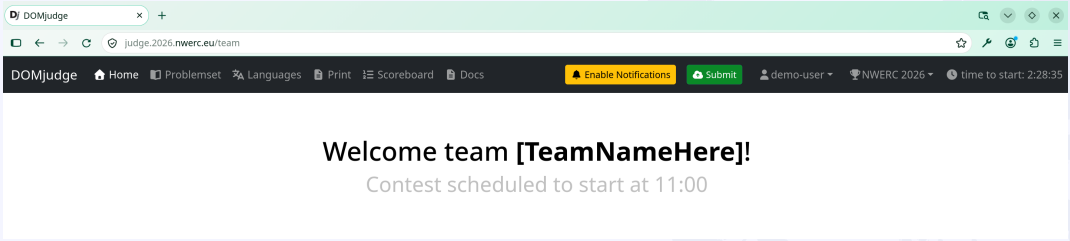
Your workstation

General information

- Based on the setup for World Finals 2026
- Ubuntu 26.04
- Xfce desktop
- Various IDEs and editors
- No internet access
- Autologin on contest start
- Ctrl and Fn are in the correct positions
- German layout; change using `setxkbmap de/us/gb/fi/se/...`


DOMjudge
judge.2026.nwerc.eu/team
DOMjudge
Home
Problemset
Languages
Print
Scoreboard
Docs
Enable Notifications
Submit
demo-user
NWERC 2026
time to start: 2:28:35
Welcome team [TeamNameHere]!
Contest scheduled to start at 11:00

Submit client

- `submit A.java`
- Explained in team manual
- `submit --help`

Search...

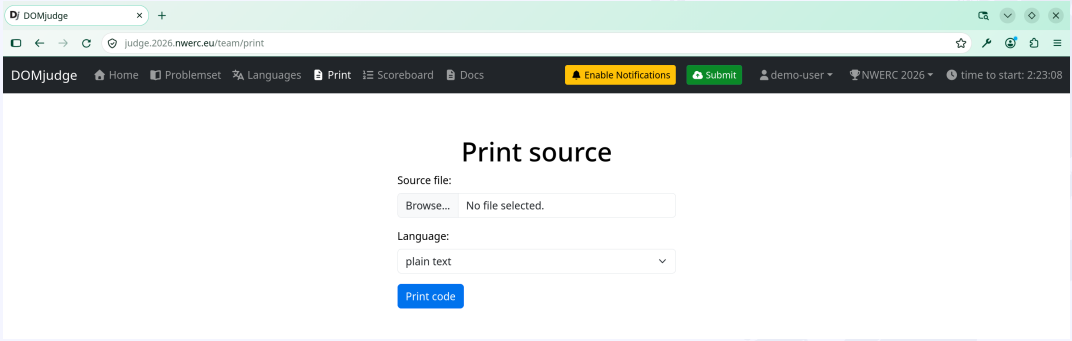
- C
- C++
- Kotlin 2.4.20
- OpenJDK 25
- Python 3.11.11

printf, fprintf, sprintf, snprintf, printf_s, fprintf_s, sprintf_s, snprintf_s

Defined in header <stdio.h>			
`int printf( const char* format, ... );`	(1)	(until C99)	
`int printf( const char* restrict format, ... );`			(since C99)
`int fprintf( FILE* stream, const char* format, ... );`	(2)	(until C99)	
`int fprintf( FILE* restrict stream, const char* restrict format, ... );`			(since C99)
`int sprintf( char* buffer, const char* format, ... );`	(3)	(until C99)	
`int sprintf( char* restrict buffer, const char* restrict format, ... );`			(since C99)
`int snprintf( char* restrict buffer, size_t bufsz, const char* restrict format, ... );`	(4)	(since C99)	
`int printf_s( const char* restrict format, ... );`	(5)	(since C11)	
`int fprintf_s( FILE* restrict stream, const char* restrict format, ... );`	(6)	(since C11)	
`int sprintf_s( char* restrict buffer, rsize_t bufsz, const char* restrict format, ... );`	(7)	(since C11)	
`int snprintf_s( char* restrict buffer, rsize_t bufsz, const char* restrict format, ... );`	(8)	(since C11)	

Loads the data from the given locations, converts them to character string equivalents and writes the results to a variety of sinks/streams:

Printing


DOMjudge
judge.2026.nwerc.eu/team/print
DOMjudge
Home
Problemset
Languages
Print
Scoreboard
Docs
Enable Notifications
Submit
demo-user
NWERC 2026
time to start: 2:23:08
Print source
Source file:
Browse...
No file selected.
Language:
plain text
Print code

Printing

- `printfile A.java`
- `submit --print A.java`

Languages

Compile commands

- C23 (GCC 15.2.0)

  mygcc `gcc -x c -std=gnu23 -Wall -O2 -static -pipe -g -lm`

  judgegcc `gcc -x c -std=gnu23 -Wall -O2 -static -pipe -DONLINE_JUDGE -DDOMJUDGE -lm`

- C++23 (GCC 15.2.0)

  myg++ `g++ -x c++ -std=gnu++23 -Wall -O2 -static -pipe -g`

  judgeg++ `g++ -x c++ -std=gnu++23 -Wall -O2 -static -pipe -DONLINE_JUDGE -DDOMJUDGE`

Languages

Compile commands

- Python 3 (3.11.15) with PyPy (7.3.23),

mypython3	`pypy3`
judgepython3	`env ONLINE_JUDGE=1 DOMJUDGE=1 pypy3`

- Java (OpenJDK 25.0.4.1)

myjavac	`javac -encoding UTF-8 -sourcepath . -d .`
judgejavac	`javac -encoding UTF-8 -sourcepath . -d .`
myjava	`taskset -c 3 java -Dfile.encoding=UTF-8 -XX:+UseSerialGC -Xss64m -Xms1920m -Xmx1920m`
judgejava	`taskset -c 3 java -Dfile.encoding=UTF-8 -DONLINE_JUDGE -DDOMJUDGE -XX:+UseSerialGC -Xss64m -Xms1920m -Xmx1920m`

Languages

Compile commands

- Kotlin (kotlinc-jvm 2.4.10)

mykotlinc	`kotlinc -d .`
judgekotlinc	`kotlinc -d .`
mykotlin	`taskset -c 3 kotlin -Dfile.encoding=UTF-8 -J-XX:+UseSerialGC -J-Xss64m -J-Xms1920m -J-Xmx1920m`
judgekotlin	`taskset -c 3 kotlin -Dfile.encoding=UTF-8 -DONLINE_JUDGE -DDOMJUDGE -J-XX:+UseSerialGC -J-Xss64m -J-Xms1920m -J-Xmx1920m`

To check, type `alias`

Miscellaneous

Questions:

- About the **problem set**: Send a clarification request.
- About the **systems**: Send a clarification request.
- All **other** questions: Ask a runner.

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Notes from the Jury

Section 7



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Scoring

- 10–15 problems, not sorted by difficulty (3 problems today)
- The team that solves the most problems wins
- Ties are broken by lower *penalty time*
  - sum of time-to-solve over all problems
  - +20 minutes for each incorrect submission on a problem that was later solved by that team

Verdicts

Possible results of a submission:

- Accepted
- Wrong Answer
- Time Limit Exceeded
- Run Time Error
- Compile Error (no time penalty)

If more than one non-accepted verdict, only one of them is shown

Click on your submission in DOMjudge to see compiler output and results on samples.

Freeze

- During the scoreboard freeze, submissions will be shown as “Pending” on the public scoreboard
- You will still see the verdicts of your own submissions
- Results will be revealed during the award ceremony

Notes

- Guarantee: all problems are solvable in C++, Python, Java, Kotlin
- There will be at least one multi-pass problem, both in the test session and in the main contest
- More hints and advice: https://2026.nwerc.eu/jury
  - Also available as PDF on your contest machines

Multi-Pass Problems

- For each test case, your code is run multiple times
- In each pass after the first, your input may depend on the output of the previous passes
- For each multi-pass problem:
  - The expected protocol is described in the statement
  - There is a `testing_tool.py` available from DOMjudge
  - The testing tool simulates running multiple passes. Look inside for documentation.
- The output validator decides how many passes there are. This may be more than two!
- The time and memory limit apply to each pass individually

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Questions?

Section 8



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Next Up

Test Session

- Start: 12:00
- End: 13:30

Lunch (Dining Hall Foyer):

- from 13:00
- Dining Hall Foyer

Company Market:

- from 11:00
- incl. snacks and coffee

Take everything with you now.
There is another event in the Audimax today.

There is a wardrobe in the dining hall.