

27-28 MAY 2024

LAMBDA

YOUR FUNCTIONAL PROGRAMMING GUIDE

lambda DAYS

```
function educate(attendees) {  
  return attendees.map(  
    educate(attendee) => {  
    }  
  )  
}
```

```
function educate(attendees) {  
  return [attendees, knowledge]  
}
```



AFTER THIS THERE IS
NO TURNING BACK



lambda

DA λ S

27-28 MAY 2024

KRAKÓW | POLAND

Welcome

to Lambda Days 2024! We have put together this handy guide to help you plan your trip!

Table of Content

Page 3.....	Hotel rooms
Page 4.....	Moving around Krakow
Page 5.....	Cafés & restaurants
Page 6.....	What to see & visit
Page 8.....	First time at Lambda Days
Page 9.....	Agenda
Page 11.....	Afterparty
Page 12.....	Code Sync conferences

Book a room

We managed to secure rooms at a special B&B rate per night for Lambda Days guests at the hotels below:



HYATT PLACE KRAKOW ****

Aleja 3 Maja 47a, 30-062 Kraków

PRICES:

-20% off the full price published on the hotel website

To book and get an attendee discount remember to contact krakow.place@hyatt.com using the password "LAMBDA DAYS"

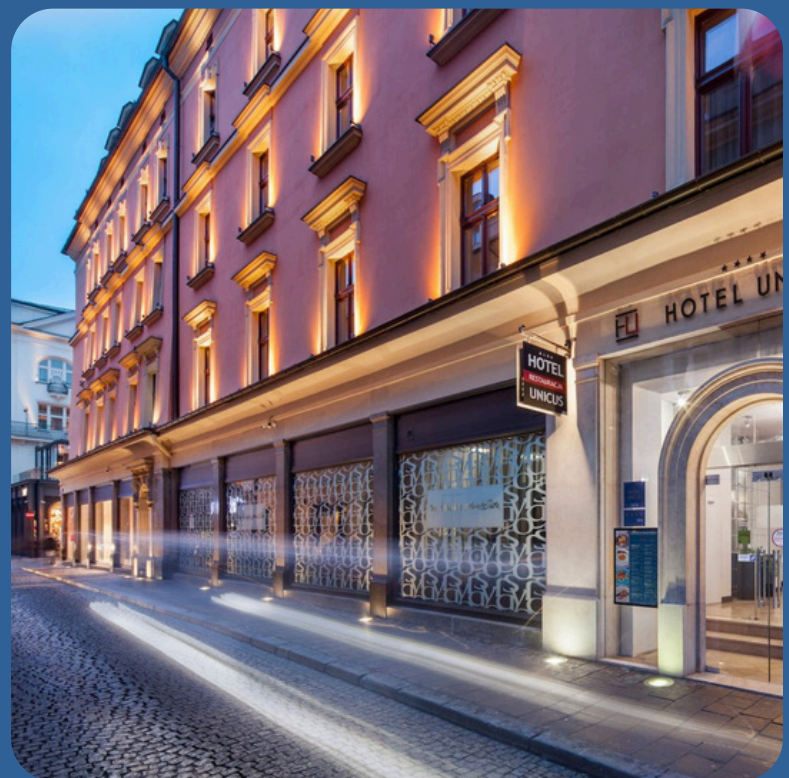
HOTEL UNICUS ****

ul. Św. Marka 20, 31-020 Kraków

PRICES:

-20% off the full price published on the hotel website

To check the attendee price and book contact repcja@hotelunicus.pl using the password "LAMBDA DAYS"



Welcome to Kraków

Welcome to one of the most beautiful cities in Poland, known for its well-preserved medieval architecture, artsy vibe, student life, excellent restaurants but also quickly developing IT sector and vibrant FP communities.

Moving around

FROM KRAKOW AIRPORT

Best way to get from the airport to the venue, apart from taxi or Uber, is to take the fast [train](#) (17 min) to the Krakow Main Station ("Krakow Główny"). Current departures of the trains and buses are presented on the screen located in front of the arrivals gate. To get to the train station take escalators to the 1st floor and go through a footbridge above the road to the multi-store car park. Trains are equipped with air conditioning, power outlets, Wi-Fi and ticket machines. More information can be found on krakowairport.pl website.

AROUND KRAKOW

When in Krakow centre, you can move around by taxi, Uber, Bolt etc. or public transport, which is quite reliable. Use jakdojade.pl for timetables and buying tickets. You can also use [google maps](#) (public transport search) and buy tickets at the machines on selected stops or selected vehicles.

PARKING

Street parking in the centre is available along the edges of roads and on some sidewalks where marked and it must be paid Mon-Sat 8:00-20:00 via app or at the ticket machine. The more comfortable solution is to use the centrally-located public parking lots, such as "[Przy Muzeum](#)", Al. Mickiewicza 18 - an underground parking garage in front of the main branch of the National Museum, within walking distance to Lambda Days venue.

Cafés & Restaurants

Here is the list of the best coffees and restaurants in the vicinity of Lambda Days venue according to our team:

GOOD COFFEE & BREAKFAST

- Tektura Cafe (Krupnicza) – best coffee and alternative coffee in the area
- Café Lisboa (Dolnych Młynów) – quaint, low-key venue specializing in Portuguese egg custard tarts
- Tektura (Krupnicza) – for simple breakfast (vegetarian) opens at 7.00am
- Astrid (Batorego) – a bit further but worth it – Nordic breakfast/brunch concept food and if it's full, Kaffee Bageri around the corner is best for fika

GOOD FOOD

- Dynia Resto Bar (Krupnicza) – colourful, family-friendly with a garden and menu of global dishes – never disappoints
- Mazaya (Krupnicza) – Syrian bistro with perfect falafels, hummus and delicious tea. Very good wraps to go.
- Molám (Dolnych Młynów) – the best Thai original place and cool atmosphere. Small menu that changes regularly
- N'Pizza (Dolnych Młynów) – an elegant but chilled place with very good Italian pizza and prosecco
- My Korea (Rajska) – shop and bistro where you can eat a corndog, tteokbokki or kimbap at the counter
- Morskie Oko (pl. Szczepański) – delicious Polish cuisine in a traditional/cottage style
- Kluska na Placu (pl. Szczepański) – fresh look at Polish, but most of all Silesian cuisine – you have to try those Silesian dumplings with beef roulade
- Kinki Ramen (Piłsudzkiego) – tastes of Japan on the highest level, vegan options and pleasant interior

GOOD BEER

Multi Qlti Tap Bar (Szewska) – the closest cool bar with craft beer and fries



Places to visit

If you arrive earlier or would like to stay longer, here are our recommendations on what you can see in Kraków:

- Rynek Underground Museum - located under the Main Square, mixes cool technologies and archaeological discoveries to tell a story of the past.
- Wawel Hill - a short walk from the Main Square, worth climbing on for the amazing view and vibe. Don't forget to check out the Dragon's Den and next to the river, the Dragon that gets thirsty every 3-4 minutes!
- Hala Forum - have a nice summer walk on Vistulan Boulevards starting near the Castle and ending in Forum, a cool, very popular leisure place with bars, good food & coffee choices, and an amazing view of the city and river. Great for chilling with friends, though crowded during weekends.
- Pubs and restaurants near Plac Nowy in Kazimierz, the Jewish quarter, 20 min from Main Square. Spiritual and bohemian centre. "Zapiekanki" from the rotunda in the middle of the square is a legendary Krakovian street food you should try when hungry.



foto: Magiczny Kraków



foto: Paweł Okuniewicz



DO YOU HAVE MORE TIME FOR SIGHTSEEING?

- Wieliczka Salt Mine – if you have a free day, take a train or bus (20–30 min) to Wieliczka and book a tour of mines – discover the amazing underground world with lakes and chapels built by miners.
- Schindler's (yes, the one who made the List) Factory – in our opinion the best exhibition/museum in Kraków showing how everyday life was disrupted by nazi occupation. Very moving, and very well designed. Save 2–3 hours for it.
- Krakus Mound – for those who look for solitude and nature and a bit of trekking. Great panorama of the city and a spot for a picnic. Enter from Podgórze market square, take the overbridge and afterwards go for a walk around Liban Quarry.
- Nowa Huta – an area of Krakow, a masterpiece of socialist-realist urban planning and Communist architecture in the north-east of the city. We recommend sightseeing with [Crazy Guides](#), who'll take you down into the old nuclear fallout shelters and on a ride in a vintage Trabant automobile.



foto: Muzeum Historyczne Miasta Krakowa

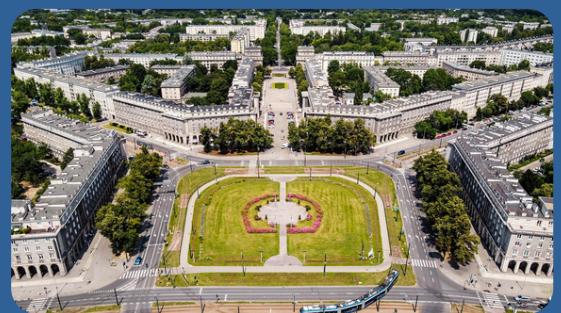
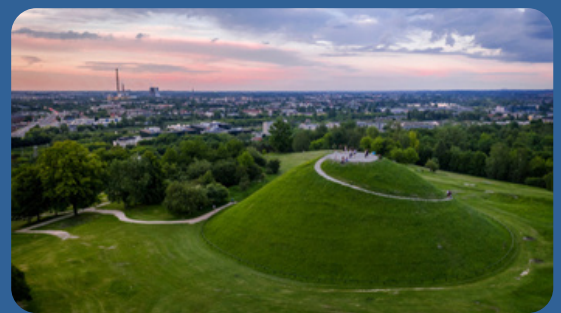


Foto: Piotr Tomaszewski-Guillon / dronographyapplied.com

Events to attend



foto: Robert Słusznik / FMF

22–26 May – 17. Film Music Festival – one of the best festivals dedicated to soundtracks from movies and video games. Live orchestral concerts to the iconic and new scores, guest composers, meet & greets and more!

First Time at Lambda Days?

Don't worry, we have your back! We love new members of the community! We've prepared a [FAQ document](#) on the Lambda Days website that will help you with questions like what should I wear, eat or should I prepare at all? Before and during the event, don't hesitate to ask us and the volunteers any questions.

We recommend downloading the [conference mobile app Nunify](#) before the event (expect more information a week before the event), where you will find lots of useful tips, floor plans, agenda, notifications from organisers etc. You can also suggest meetups and meetings, chat with other attendees and make new friends before the conference starts.

If you're unsure which talk to attend, we hope the "[Beginner-friendly](#)" tag visible on the website and conference app agenda will help you.

Name Badges

For those, who are shy or just introvertic, we've added a special section on the name badges where you can write a conversation starter tip for other attendees who approach you. It doesn't have to be about programming - for example it can be your favourite show or your pet!



Agenda - Day 1

MAY 27, 2024

AULA DUŻA

AULA ŚREDNIA

AULA MAŁA

8:00 - 9:00 REGISTRATION

9:00 - 9:30 WELCOME

9:30 - 10:20 | Keynote: Applying Task-Oriented Functional Programming for developing Real-world Multi-user Web-Applications
Rinus Plasmeijer
CaseStudy

10:20 - 10:50 COFFEE BREAK

10:50 - 11:35 | How does a programmer think about code?
Szymon Rodziewicz
Scala Learning

An Effect-ful functional framework for TypeScript
Alberto Schiabel
Beginner-Friendly TypeScript

Lessons learnt from writing 10k LOC in Elm
Sophie Collard
Beginner-Friendly Elm UI

11:40 - 12:25 | Gradualize your language with set-theoretic types
Guillaume Duboc
Elixir gradula-typing types

Define your own rules: dynamic system behavior control at runtime
Veronika Yastrebova
Scala design

Far more than you've ever wanted to know about ADTs
Nicolas Rinaudo
Beginner-Friendly ADT

12:25 - 13:30 LUNCH BREAK

13:30 - 14:15 | David Turner Memorial Session
John Hughes
Simon Thompson
Lennart Augustsson
Jeremy Gibbons (online)
Beginner-Friendly Miranda

Embedding of external DSLs in Scala: why and how!
Juan Manuel Serrano Hidalgo
Scala DSL

SAFE Stack: The Pit of Success for Functional Web Programming
Isaac Abraham
F# JavaScript web

14:20 - 15:05 | Bidirectional Data Transformations with Functional Optics
Marcus Crestani
data

Lustre Universal Components: the best of Elm and Phoenix LiveView
Hayleigh Thompson
Beginner-Friendly Gleam LiveView Elm

fast - grepping SQL code like a boss
Jônatas Paganini
Research SQL AST

15:10 - 15:30 | Imagine a Dependently Typed Python.
Andor Péntzes
Beginner-Friendly Research Python Types

The Y Combinator: developing intuition around abstract recursion
Dave Kimber
Clojure recursion calculus

Declarative UIs in a functional language
Felipe Almeida Lessa
Hidde Verstoep
UI

15:30 - 16:00 COFFEE BREAK

16:00 - 16:20 | Types and other techniques as an accessibility tool for the ADHD brain
Michael Newton
Types neurodiversity

Code in Unison
Daan van Berkel
Beginner-Friendly Unison

My First Year in FP
Monica McGuigan
Beginner-Friendly Learning

16:25 - 16:45

From 1 to 100k users: Lessons learned from scaling a Haskell app
Felix Miño
Beginner-Friendly scalability performance

16:50 - 17:40 | Keynote: 30+ years of modelling communicating systems in a functional style
Dame Muffy Calder
Beginner-Friendly

17:40 - 17:50 CLOSING NOTES

18:00 - 20:00 AFTERPARTY (different location)

Agenda - Day 2

MAY 28, 2024

AULA DUŻA

AULA ŚREDNIA

AULA MAŁA

8:30 - 9:00 REGISTRATION

9:00 - 9:10 WELCOME

9:10 - 10:00 | **Keynote: Algebraic Effect Handlers with Parallelizable Computations**
[Ningning Xie](#)
Beginner-Friendly language-design

10:05 - 10:50 | **Lightning talks**

10:50 - 11:20 COFFEE BREAK

11:20 - 12:05 | **Property-testing all* the things in SerenityOS**
[Martin Janiczek](#)
Beginner-Friendly

The Functional Edge: Robotic Testing with Bowler Studio and Clojure
[Thomas Gebert](#)
Beginner-Friendly robotics testing

Automata Unveiled: A Theoretical Exploration of State Machines
[Nelson Vides](#)
Erlang protocols

12:10 - 12:30 | **WasmRef-Isabelle - or how to formally verify a not-slow interpreter with not-insane amount of effort**
[Maja Trela](#)
WebAssembly formal-verification

Media streaming in the functional world
[Mateusz Front](#)
streaming Membrane Elixir

Cellular Automata for video games
[Maciej Gorywoda](#)
Research Beginner-Friendly AI video-games

12:30 - 13:30 LUNCH BREAK

13:30 - 14:20 | **Keynote: The Two Cultures of Artificial Intelligence**
[Philip Wadler](#)
Beginner-friendly AI

14:25 - 15:10 | **The design and implementation of embedded Domain Specific Languages**
[Pieter Koopman](#)
[Mart Lubbers](#)
design DSL

Functional Platform Engineering with Scala and Pulumi
[Lukasz Bialy](#)
Infrastructure Scala DevOps

The Power of Mentoring: Nurturing Growth in the IT Industry - panel discussion
[Monica McGuigan](#)
[Sophie Collard](#)
[Maciej Gorywoda](#)
[Jónatas Paganini](#)
[Nicolas Rinaudo](#)
[Anna Miler](#)
Beginner-Friendly mentorship

15:10 - 15:40 COFFEE BREAK

15:40 - 16:00 | **Detecting Noninterference Violations with Property-Based Testing**
[Fernanda Andrade](#)
property-basedtesting metatheory

Well-typed Programs Can Go Wrong: Enhancing the Reliability of Type Checkers in Compilers
[Thodoris Sotiropoulos](#)
statictyping testing Research

A Scientific Document Management System (Elm + Lamdera)
[James Carlson](#)
Beginner-Friendly Elm Lamdera

16:05 - 16:55 | **Keynote: Programming for the planet**
[Anil Madhavapeddy](#)
ClimateCrisis Beginner-Friendly

16:55 - 17:10 CLOSING NOTES



Afterparty

Informal drinks and nibbles will be available from 6:00 PM on Monday, 27 May on Bracka 4 Street.

After the first day of the conference, we invite all the attendees to [N'JOY & Bilard | Bracka 4](#) (2nd floor), an exciting spot just next to the Main Square!

Expect informal drinks, nibbles, good company and more discussions about the functional world. It's a 15-minute walk from the venue through Krakow's Old Town. We hope to see you there!



Scan the code for the address.

Bring your conference badge!

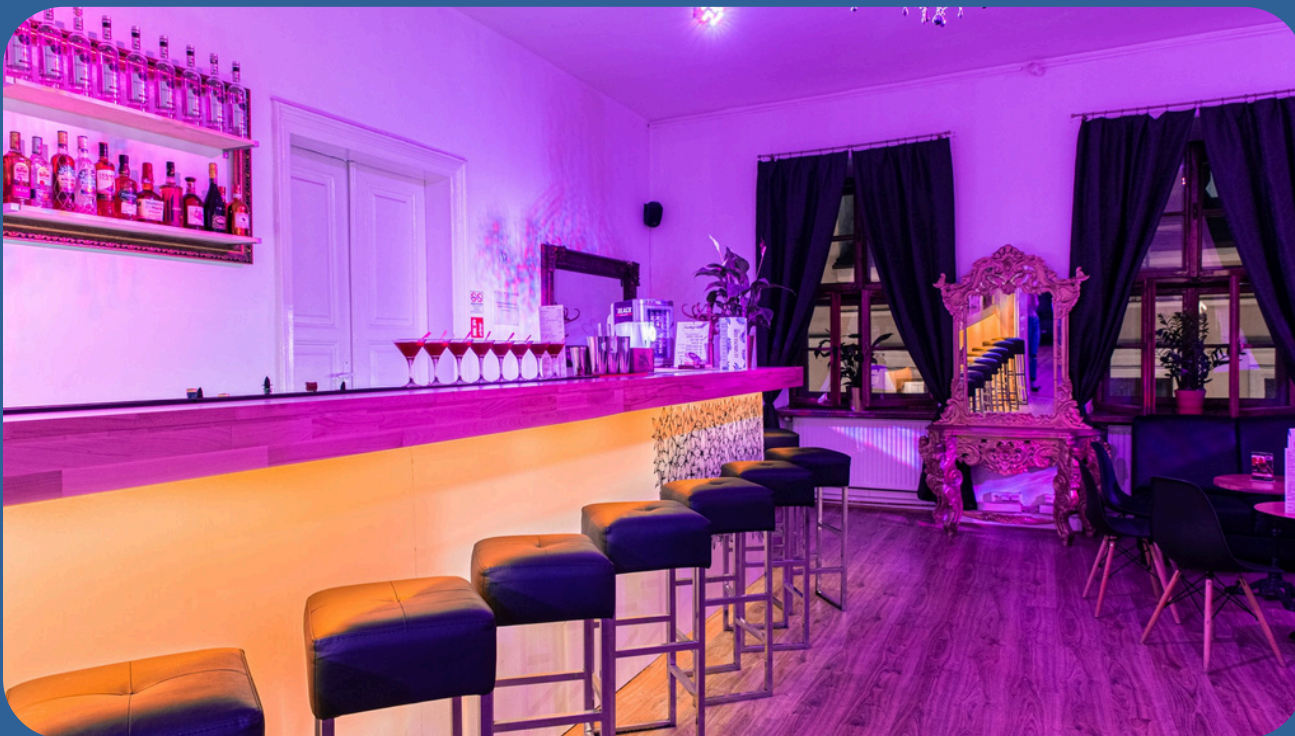


photo: Cocktail Bar & Billard - Bracka 4 materials



Lambda Days was brought to you by **Code Sync**, a team behind tech conferences bringing people together to facilitate a debate on Erlang, Elixir, the BEAM ecosystem and functional programming.

Check out all of our events:
codesync.global



- > **Code BEAM Lite:** 13 May, Stockholm, Sweden
- > **Code BEAM Europe:** 14-15 October, Berlin, Germany
- > **Code BEAM America:** March 2025, TBA, USA

RabbitMQ Summit

15 October, Berlin, Germany

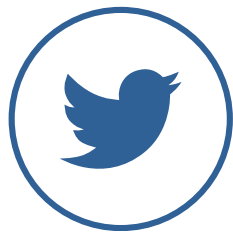
ElixirConf EU 

15-16 May 2025, Kraków, Poland





Let's stay in touch!



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See you there!