



9th International Symposium  
on Combinatorial Optimization

*Kuşadası, Türkiye. May 6-8, 2026*

# Welcome to 9th International Symposium on Combinatorial Optimization

Refet POLAT

On behalf of Organizing Committee

[isco2026.com.tr](http://isco2026.com.tr)

Venue:

Korumar Ephesus Beach & Spa Resort



9th International Symposium  
on Combinatorial Optimization

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UNIVERSITY

**Dauphine** | PSL   
UNIVERSITÉ PARIS



**L-Università  
ta' Malta**



**Kuwait University**



**9th International Symposium  
on Combinatorial Optimization**

*Kuşadası, Türkiye. May 6-8, 2026*



**Founded in 2007**

Public University

52.000 Students

Particularly excels in the fields of internationalization  
and engineering.

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Founded in 1992

Public University

43.600 Students

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and education sciences

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**YASAR**  
UNIVERSITY

Founded in 2001

Foundation University

8.800 Students

Particularly excels in the fields of business,  
economics, social sciences and engineering

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**Founded in 1968**

Public University

13.200 Students

Particularly excels in the fields of organization,  
decision sciences, economics, finance, and law

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**L-Università  
ta' Malta**

**Founded in 1592**

Public University

11.000 Students

Particularly excels in the fields of  
medicine, law, science and engineering

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## **Kuwait University**

**Founded in 1964**

Public University

40.000 Students

Particularly excels in the fields of  
engineering, health sciences, and knowledge  
economy



# ISCO Editions

1st ISCO Hammamet, Tunisia March 2010	2nd ISCO Athens, Greece April 2012	3rd ISCO Lisbon, Portugal March 2014
4th ISCO Vietri, Italy May 2016	5th ISCO Marrakesh, Morocco April 2018	6th ISCO Montreal, Canada May 2020
7th ISCO Paris, France May 2022	8th ISCO Tenerife, Spain May 2024	9th ISCO Kuşadası, Türkiye May 2026



# Conference Chairs

**Simge Küçükyavuz**  
Northwestern University, USA

**A. Ridha Mahjoub**  
Kuwait University, Kuwait;  
Paris Dauphine University, France

**Volker Kaibel**  
Otto-von-Guericke Universität, Germany

**Hakan Kutucu**  
Karabük University, Türkiye



# Organizing Committee

<b>Korhan Günel</b> Aydın Adnan Menderes University, Aydın, Türkiye	<b>Hakan Kutucu</b> Karabük University, Karabük, Türkiye	<b>Refet Polat</b> Yaşar University, Izmir, Türkiye	<b>A. Ridha Mahjoub</b> Kuwait University, Kuwait; Paris Dauphine University, France
<b>Enisse Kara</b> Karabük University, Karabük, Türkiye	<b>Onur Baysal</b> University of Malta, Malta	<b>Mariam Ben Salem</b> Esprit School of Engineering, Tunisia	



Special thanks to  
Steering Committee, Program Committee  
External Reviewers



## ISCO 2026 in numbers

111 participants,

16 different countries,

- Türkiye 31%, France 20%, United States 9%, Canada 7%, Germany 7%, Spain 7%, Italy 7%, United Kingdom 4%, Brazil 3%, Bangladesh 1%, India 1%, Kuwait 1%, Romania 1%, Thailand 1%,

85 paper presentations (out of 120 submissions),

41 regular full paper accepted for publication (out of 64 submissions).



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# Spring School

(was held on 4-5 May 2026)

**Gerard  
CORNUEJOLS**

**Carnegie Mellon University,  
United States**

**Ahmad  
ABDI**

**London School of  
Economics, United Kingdom**



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# Spring School



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# Invited Speakers

**Hande  
Yaman Paternotte**

Faculty of Economics and  
Business, KU Leuven,  
Belgium

Talk: Thu 7 May, 11:45-12:35

**Tınaz  
Ekim**

Industrial Engineering at  
Boğaziçi University, Istanbul,  
Türkiye

Talk: Wed 6 May, 09:00-09:50

**Sebastian  
Pokutta**

Institute for Mathematics,  
Technische Universität Berlin,  
Germany

Talk: Fri 8 May, 09:00-09:50

**Miguel F.  
Anjos**

Operational Research at the  
University of Edinburgh,  
United Kingdom

Talk: Thu 7 May, 09:00-09:50



# Conference Program

	Wednesday, May 6		Thursday, May 7		Friday May 8
08:45-09:00	Opening				
09:00-09:50	<b>Tınaz EKİM</b>	09:00-09:50	<b>Miguel F. ANJOS</b>	09:00-09:50	<b>Sebastian POKUTTA</b>
10:00-11:15	W1a, W1b, W1c	10:00-11:15	T1a, T1b, T1c, T1d	10:00-11:15	F1a, F1b, F1c
11:15-11:45	<i>Coffee Break</i>	11:15-11:45	<i>Coffee Break</i>	11:15-11:45	<i>Coffee Break</i>
11:45-13:00	W2a, W2b, W2c	11:45-12:35	<b>Hande YAMAN PATERNOTTE</b>	11:45-13:00	F2a, F2b, F2c
13:00-14:30	<i>Lunch</i>	12:40-14:00	<i>Lunch</i>	13:00-13:20	Closing
14:30-15:45	W3a, W3b, W3c	14:00-14:50	T2a, T2b, Hexaly	13:20-14:30	<i>Lunch</i>
15:45-16:15	<i>Coffee Break</i>	15:00-15:50	T3a, T3b, T3c, T3d		
16:15-17:30	W4a, W4b, W4c	16:00-19:30	<i>Ephesus Tour &amp; Temple of Artemis</i>		
17:30-18:30	<i>Welcome Reception</i>	20:00-22:00	<i>Gala Dinner</i>		



# Instructions for talks

- There will be 29 parallel sessions during the symposium,
- Presentations are limited to 20 minutes, question & answer limited to 5 minutes,
- Certificates will be sent digitally after the presentations.



# Social Programs (Welcome Reception)

- When: On Wednesday, May 6, 2026, between 17:30 and 18:30,
- Where: In the foyer area in front of the Smyrna Hall.



# Social Programs (Ephesus Tour & Temple of Artemis)

- When: Thursday, May 7, 2026, between 16:00 and 19:30,
- How to go: The buses will depart from the hotel entrance at 16:00,
- Important note: Turkish citizens need a museum pass to visit Ephesus.



# Social Programs (Gala Dinner)

- When: On Thursday, May 7, 2026, between 20:00 and 22:00,
- Where: In the Smyrna Hall.



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# hexaly

**Beyond MILP:  
Hexaly, hybrid optimization solver**

Théo Bordillon  
tbordillon@hexaly.com

May 6, 2026

[www.hexaly.com](http://www.hexaly.com)

# Complete platform for building and deploying mathematical optimization applications

## Hexaly Optimizer

Global optimization solver

## Hexaly Modeler

Modeling language for optimization

## Hexaly Studio

Low-code studio for optimization

## Hexaly Cloud

Optimization as a service

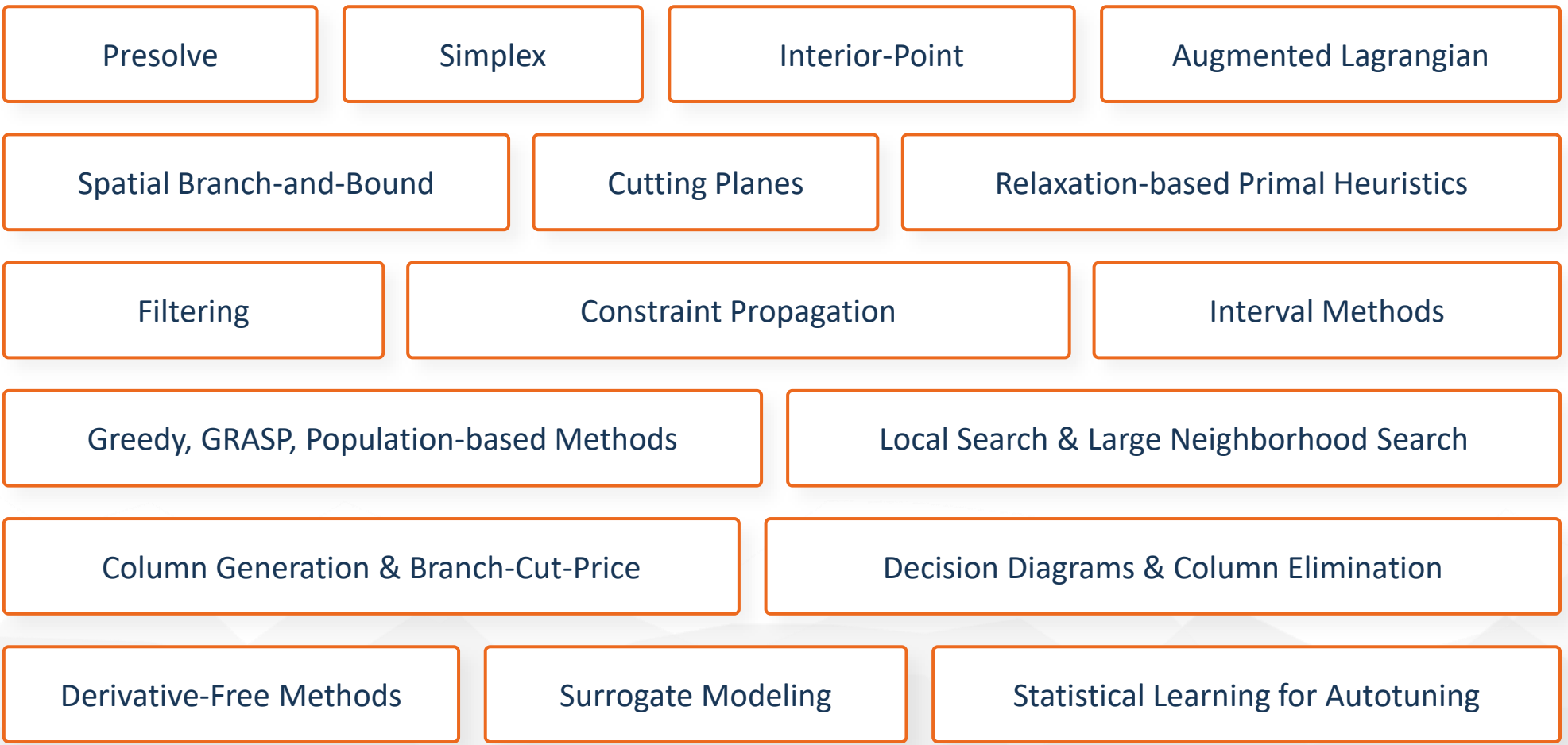


**All free for academics and students!**

# Where we are now: Hexaly 14.5

Hybridizes a myriad of exact and heuristic methods under the hood

LP/QP/NLP  
MILP/MINLP  
CP/SA  
L  
S  
BCP/D  
BB  
O

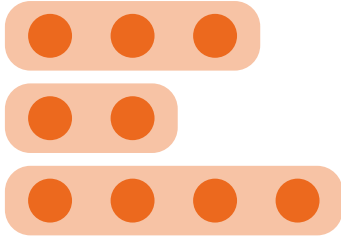


# Innovative set-based modeling formalism

Adds new, **CP-inspired concepts for combinatorial modeling**

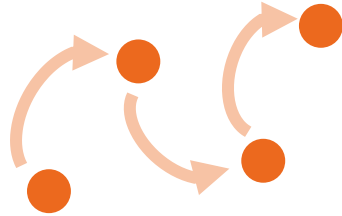
**Sets**

$A$   
 $|A|$   
 $A \cap B$   
 $partition(A, B)$



**Lists**


$S(A)$   
 $\sigma \in S(A)$   
 $\sigma(0)$   
 $\sigma^{-1}(5)$



**Intervals**


& optional intervals

$x = [a, b[$



**Functions**

$f(t)$



+ Global combinatorial operators over  
a set of collections

Map-reduce operators on  
variadic collections

# The Traveling Salesman Problem

List-based model with Hexaly

```
// List variable: cities[i] is the index of the i-th city in the tour  
cities <- list(nbCities);
```

**cities** is a **permutation of a subset** of  $\{0, \dots, \text{nbCities}-1\}$

- Uniqueness of items
- **Variable** size
- Items are **ordered**

```
// All cities must be visited  
constraint count(cities) == nbCities;
```

```
// Minimize the total distance  
totalDistance <- sum(1..nbCities, i => distance[cities[i - 1]][cities[i]])  
  + distance[cities[nbCities - 1]][cities[0]];  
minimize totalDistance;
```

# Unparalleled performance on Routing, Scheduling, Packing, Clustering, Assignment, and more

## TSP

30K cities – **0.4% gap**

## CVRP XXL

30K cities – **4.4% gap**

## CVRPTW

1,000 cities – **1.9% gap**

## Job Shop XXL

1M tasks – **8,6% improvement**

## Flexible Job Shop

500 tasks – **0.7% gap**

## RCPS

300 tasks – **2.0% gap**

## Bin Packing

5,000 items – **0.1% gap**

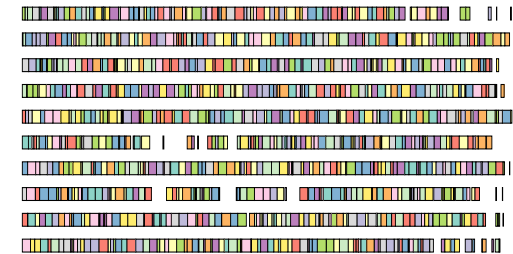
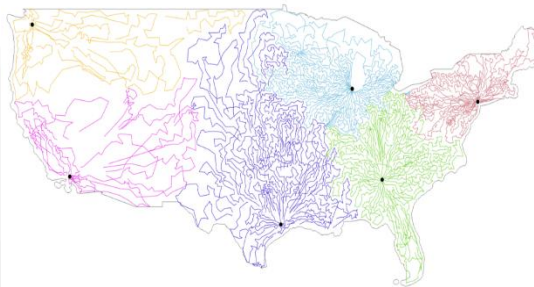
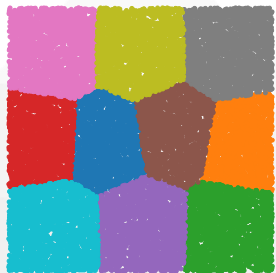
## QAP

250 facilities – **1.1% gap**

## K-means

80K points – **1% gap**

[www.hexaly.com/benchmarks](http://www.hexaly.com/benchmarks)



# Learn more about Hexaly

**Semi-plenary Hexaly**

**Thu. 12:40 – Room C**

**Beyond MILP: Hexaly, hybrid optimization solver** – Théo Bordillon



**More questions?**

Come visit our **booth** during the coffee breaks!



**Try Hexaly for free!**

**Free academic licenses** for researchers and students

**Free 1-month trial licenses** for business users





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# Invited Speaker

## Tınaz Ekim

Industrial Engineering at  
Bogazici University, Türkiye

Network Security and Emergency  
Preparedness: The Defensive Domination  
Model

Talk: Wed 6 May, 09:00-09:50