

Agenda (Updated)

IMAAC (COST Action CA16227)

Lisbon Events (7.-12. March 2022)

Hybrid 4. Training School on Optimal Control Theory and Mosquito Control Strategies: Mathematical Modelling in Epidemiology and Control (4. Training School) (10.-12. March 2022)

Organized Locally by QuanTec GmbH, IMAAC-*next* and COLD Group

Venue :

SANA Metropolitan Hotel (Room Madrid A)

Rua Soeiro Pereira Gomes, parcela 2, 1600-198 Lisboa – Portugal

Online Link:

<https://videoconf-colibri.zoom.us/j/82945085671>

In case of Technical Problems, Pls. ask **Markus Schwehm** (markus.schwehm@explosys.de) or **Detlef Wabnitz** (detlef.wabnitz@jawa-owm.de).

General Description and Output:

Description:

At the final GP fourth and final Training school will be held in Lisbon/Portugal to develop the necessary mathematical tools including “Optimal Control Theory and Epidemiological Modelling” in communication with all WGs, which are at the core of investigation of the effect of employing avant-garde mosquito control measures as part of the technological processes in the textile and paint industries. One core aim of this Training School is (based on the successful experiences developed in the 1., 2. and 3. Training School in Aveiro, Helsinki and Fuerteventura) to provide a course specifically for biologists and chemists and textile engineers on mathematical modelling to fill the gap in understanding the language of mathematicians and physicists in WG1 and WG2. This is necessary to translate the achieved results in WG3, WG4 and WG5. We are planning to develop the courses also after the end of the Action. Interested Early career researchers are encouraged to participate. One important aspect will be to open our Training School for researchers and students in Africa, Asia and South America or connected to activities there. The Training School will be held in Lisbon jointly

coordinated with one University based in Portugal. One other aim of this training school will be also to tighten the cooperation between Afrimac Organization and our COST Action based on the signed letter of intent in April 2019. Afrimac is an initiative from the Council of Fuerteventura for business, technological and innovative exchange in areas of high economic impact between Canary Islands and West Africa. We use this Training School also to discuss future research after the termination date of this Action on 20. March 2022. We are also planning to discuss the final draft of the Editorial Book "Bio-mathematics, Statistics and Nano-Technologies: Mosquito Control Strategies" which will be published by CRC Press/Taylor & Francis Group.

Output(s):

The held courses during the Training School will be published on the Action's website. Through this Training school, a better understanding between mathematicians, biologists, chemists and textile engineers can be achieved. The gained results in WG3, WG4 and WG5 can be easier translated in relevant modelling for WG1 and WG2. It is also intended to draft a training course textbook based on the courses and talks given. We are also confident to have a better picture of how to organize the future Training School (possibly in 2023) after the end of the Action.

1. Day

Hybrid 4. Training School on Optimal Control Theory and Mosquito Control Strategies: Mathematical Modelling in Epidemiology and Control (4. TS)

Thursday 10. March 2022 from 09.30 to 17.00

Morning

SANA Metropolitan Hotel (Room Madrid A)

❖ 9:00 – 10:00 **Registration** (Mrs Karen de Souza <kakahecf@hotmail.com>)

SANA Metropolitan Hotel (Room Madrid A)

10:00 - 10:15

Peyman Ghaffari
Ana Marija Grancaric

Introductory Remarks to the final 4. Training school

10:15 - 11:00

Dorota Mozyrska (WG1), Cristiana Silva (WGL2), Cleo Anastassopoulou (WG3), Christian Fischer (WG4), Elton Rogozi (WGL5), Markus Schwehm (WGL6), Sofia Rodriguez (Science Communication Coordinator), Tatjana Atanasova – Pachemska (STSM-Coordinator)

IMAAC's 4. Training School: Creation of the Working Groups

SANA Metropolitan Hotel (Room Madrid A)

❖ 11:00 – 11:30 **Tea Break**

SANA Metropolitan Hotel (Room Madrid A)

11:30 - 12:30

Peter Rashkov

Application of optimal control theory to models for vector-borne diseases / Q & A

12:30 - 13:00

Laura Alpizar

NJC's presentation: opening new possibilities

SANA Metropolitan Hotel (Room Madrid A)

13:00 – 14:00

Lunch Break

SANA Metropolitan Hotel (Room Madrid A)

Afternoon

SANA Metropolitan Hotel (Room Madrid A)

14:00 - 14:30

Announcement of Working Groups of 4. TS / Appointment of Internal Working Group Leaders of 4. TS

14:30 - 15:30

Open Discussion & Parallel Internal Sessions

SANA Metropolitan Hotel (Room Madrid A)

15:30 – 16:00

Tea Break

SANA Metropolitan Hotel (Room Madrid A)

16:00 - 16:45

Open Discussion & Parallel Internal Sessions

16:45

END of Day 1 of 4. Training School

Networking & Social Programs (10. March 2022):

16:45

Meeting Point at Sana Metropolitan for:

the "Sunset Tour at Cabo da Roca"

❖ 20:00 – 21:30

Further Discussions, Networking & Social Programs

Location:

Ristorante Olivo

Restaurante Italiano

Rua de São Gabriel |26| Alto do Lagoal | Caxias

☎ 210 163 266 | 937 518 604

(In case of Dietary restrictions pls. contact **Karin Heinroth** <kheinroth98@gmail.com>)

Please note Dinner is NOT covered by LOCAL ORGANIZER this time. Everyone has to pay for his own dinner and claim via travel reimbursement.

2. Day

Friday 11. March 2022 from 09.30 to 17.00

Morning

SANA Metropolitan Hotel (Room Madrid A)

❖ 9:00 – 9:30 **Registration** (Mrs Karen de Souza <kakahecf@hotmail.com>)

SANA Metropolitan Hotel (Room Madrid A)

9:30 - 10:30

Nikolay D. Zaitsev

Petri nets and Epidemiology (Part I): Practical modeling by Petri nets in system Tina / Q & A

10:30 - 11:00

Aliah T. Gill

Nahid Ahmed

COLD x IMAAC Workshop: Building Beyond Mosquitos

SANA Metropolitan Hotel (Room Madrid A)

❖ 11:00 – 11:30 **Tea Break**

SANA Metropolitan Hotel (Room Madrid A)

11:30 - 12:00

Catherine Drysdale

Public Health / Sick Care - a global overview of the US Health System

12:00 - 12:30

Amira Rachah

Machine Learning Techniques to Predict Animal Health, Welfare and Production Efficiency

12:30 - 13:00

Asghar Talbalghi; Elton Rogozi

Viola Jani; Lara Ferrero Gómez

World of Mosquitos: An Overview (part I) / Q & A

13:00

Group Photo

SANA Metropolitan Hotel (Room Madrid A)

13:00 – 14:00 **Lunch Break**

SANA Metropolitan Hotel (Room Madrid A)

Afternoon

SANA Metropolitan Hotel (Room Madrid A)

14:30 - 15:30

Open Discussion & Parallel Internal Sessions

SANA Metropolitan Hotel (Room Madrid A)

15:30 – 16:00 **Tea Break**

SANA Metropolitan Hotel (Room Madrid A)

16:00 - 17:00

Open Discussion & Parallel Internal Sessions

17:00

END of Day 2 of 4. Training School

3. Day

Saturday 12. March 2022 from 09.30 to 16.00

Morning

SANA Metropolitan Hotel (Room Madrid A)

❖ 9:00 – 9:30 **Registration** (Mrs Karen de Souza <kakahecf@hotmail.com>)

SANA Metropolitan Hotel (Room Madrid A)

9:30 - 10:30

Dmitry Zaitsev

Petri nets and Epidemiology (Part II): Practical modeling by colored Petri nets in system
CPN Tools / Q & A

10:30 - 11:00

Blerina Kolgjini
Ilda Kola

The Importance of Testing Textile after Special Treatment

SANA Metropolitan Hotel (Room Madrid A)

❖ 11:00 – 11:30 **Tea Break**

SANA Metropolitan Hotel (Room Madrid A)

11:30 - 12:00

Jóse Oliviera; Russell Alpizar; Ana Marija Grancaric
Aliah T. Gill; Peyman Ghaffari; Sofia Rodriguez

Island of Science and Technology Project / Innovative Global Observatory of Vector-borne
Infectious Diseases

12:00 - 13:00

Asghar Talbalghi; Elton Rogozi;
Viola Jani; Lara Ferrero Gómez

World of Mosquitos: An Overview (part II) / Q & A

SANA Metropolitan Hotel (Room Madrid A)

13:00 – 14:00 **Lunch Break**

SANA Metropolitan Hotel (Room Madrid A)

Afternoon

SANA Metropolitan Hotel (Room Madrid A)

14:00 - 15:45

Open Discussion & Parallel Internal Sessions

15:45 - 16:00

Peyman Ghaffari
Ana Marija Grancaric

Final Remarks on the Final TS and IMAAC-next

16:00

END of Day 3 of 4. Training School

END of the 4. Training School