



**UNIVERSITÀ
DEGLI STUDI DI BARI
ALDO MORO**

DISAAT

DIPARTIMENTO DI SCIENZE
AGRO-AMBIENTALI E TERRITORIALI
DEPARTMENT OF AGRICULTURAL AND
ENVIRONMENTAL SCIENCE



**UNIVERSITY
of LIFE SCIENCES**
in Lublin



FACULTY OF PRODUCTION
ENGINEERING



FARM MACHINERY AND PROCESSES MANAGEMENT IN SUSTAINABLE AGRICULTURE

XI International Scientific Symposium

**University of Bari Aldo Moro – Atheneum main building
Piazza Umberto I, 1
Bari – Italy
13-15 June 2022**

Final Programme



ASSOCIAZIONE ITALIANA
DI INGEGNERIA AGRARIA



CITTÀ METROPOLITANA DI BARI



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13 June 2022

Atheneum main building – Piazza Umberto I, 1



- 09:30 – 12:00** **Welcome coffee and registration of participants**
Atheneum main building – Lecture hall
- 12:00 – 12:15** **Authorities welcome addresses**
Atheneum main building – Lecture hall
Antonio Decaro **Bari Mayor**
Stefano Bronzini **Rector of the University of Bari Aldo Moro**
- 12:15 – 12:45** **Opening session**
Atheneum main building – Lecture hall
Edmund Lorencowicz **Symposium chairman**
Simone Pascuzzi **Symposium chairman**
Francesco Santoro **Symposium chairman**
- 12:45 – 14:30** **Light lunch**
Atheneum main building – Inner cloister
- 14:30 – 17:00** **Parallel sessions**
Atheneum main building – Lecture hall
Polyfunctional centre – Hall 1
Polyfunctional centre – Hall 2
- 17:00 – 17:30** **Coffee break**
- 17:30 – 19:30** **Parallel sessions**
Atheneum main building – Lecture hall
Polyfunctional centre – Hall 1
Polyfunctional centre – Hall 2
- 20:00** **Dinner**
“La baresana” – Via Roberto da Bari, 6 - Bari

13 June 2022

Parallel Session 1

Atheneum main building – Lecture hall – Piazza Umberto I, 1



Topic 01 - Management of field and livestock production machinery

| Time | Presented paper |
|--------------------|---|
| 14:30-14:49 | The structure of engine power of agricultural tractors registered in Poland in 2010-2020 <i>Przywara A., Koszel M., Kraszkiewicz A., Atanasov A. Z., Parafiniuk S.</i> |
| 14:50-15:09 | Tillage quality and draught force of a novel plough concept with cambered disc <i>Moitzi G., Rechberger C., Huber F.-F., Trimmel M., Wagenristl H.</i> |
| 15:10-15:29 | Theoretical study of the trajectory of movement of a ploughing aggregate with a reversible plough on the headlands <i>Bulgakov V., Pascuzzi S., Adamchuk V., Nadykto V., Ivanovs S., Aboltins A., Kaletnik H., Santoro F., Vicino F., Nowak J.</i> |
| 15:30-15:49 | Research of the possibilities to improve the quality of potatoes harvesting by including an experimental heap leveler-distributor in the design of harvesting machines <i>Ivanovs S., Bulgakov V., Pascuzzi S., Adamchuk V., Kornuchin V., Ruzhylo Z., Trokhaniak O., Nowak J., Kiernicki Z., Santoro F., Bulgakova O.</i> |
| 15:50-16:09 | Theoretical studies of the relationship between the parameters of the bridge tractor and the engineering area of the field <i>Bulgakov V., Nikolaenko S., Pascuzzi S., Adamchuk V., Kuvachov V., Krutyakova V., Santoro F., Nowak J.</i> |
| 16:10-16:29 | Research into power and load parameters of flexible screw conveyors for transportation of agricultural materials <i>Bulgakov V., Pascuzzi S., Adamchuk V., Olt J., Ruzhylo Z., Trokhaniak O., Santoro F., Arak M., Nowak J., Beloev H.</i> |
| 16:30-16:49 | Assessment of a big square baler able to reduce soil impurities during baling process. First evaluations <i>Guerrieri A.S., Santoro F., Vicino F., Pascuzzi S.</i> |
| 16:50-17:29 | Coffee break |

Topic 04 - Plant protection, soil management and agrochemicals application

| Time | Presented paper |
|-------------|---|
| 17:40-17:49 | New threats to agricultural crops in Poland. The harmfulness of spider mite in sugar beet <i>Jakubowska M., Tratwal A., Bocianowski J., Roik K.</i> |
| 17:50-18:09 | Effect of nozzle condition and type in the spray quality in wheat plants <i>Subr A., Milanowski M., Parafiniuk S.</i> |
| 18:10-18:29 | Problems with System of Sprayers Testing in Poland Based on 20 years of Experience <i>Czaczyk Z., Król J., Nagengast H., Alankiewicz D.</i> |
| 18:30-18:49 | Changes in soil pH and their influence on sustainable development in the agriculture <i>Żukiewicz-Sobczak W., Sobczak P., Grotkiewicz K., Do-mańska A., Mazur J., Łusiak P., Żukiewicz K., Bernatek M.</i> |
| 18:50-19:09 | Phosphorus balance trend in Albania agriculture during the period 1950-2019 <i>Gjoka F., Shkurta E., Miho L., Nasto T.</i> |

Topic 06 - Ergonomic, labour organization, pandemic impact

| Time | Presented paper |
|-------------|---|
| 19:10-19:29 | Estimation Of Workload Level Of Dynamic And Static Warehouse Assemblers In Logistic And Ergonomic Aspect <i>Gawliński M., Łyp-Wrońska K.</i> |

13 June 2022
Parallel Session 2
Polyfunctional centre – Hall 1 – Piazza Cesare Battisti, 1



Topic 09 - Sustainable agriculture in the European Union and other countries

| Time | Presented paper |
|--------------------|--|
| 14:30-14:49 | Social networks for rural development and sustainability in Greece. The case of Messenia <i>Papageorgiou A.</i> |
| 14:50-15:09 | The prospects of using vegetable oil in the building industry <i>Kachel M., Krawczuk A.</i> |
| 15:10-15:29 | The problem of waste on the food market <i>Dudziak A., Stoma M.</i> |
| 15:30-15:49 | Pollen concentration of <i>Ailanthus altissima</i> on the South Transdanubia region in Hungary <i>Vojnich V.J., Ferencz Á., Tóth T., Tempfli K., Magyar D.</i> |
| 15:50-16:09 | Analysis of market behaviour on the organic food market in terms of environmental protection and consumer environmentalism <i>Stoma M., Dudziak A.</i> |
| 16:10-16:29 | Development of a new Unbiased Impact Index on Water of Pesticides Use – Case Study on Herbicides Application on Sugar Beet <i>Bergiers G., Durenne B., Weickmans B., Huyghebaert B.</i> |
| 16:30-16:49 | Assessment of the suitability of apple pomace for food purposes in the context of sustainable agriculture <i>Nadulski R., Sobczak P., Zawiślak K., Kobus Z.</i> |
| 16:50-17:29 | <i>Coffee break</i> |

Topic 09 - Sustainable agriculture in the European Union and other countries

| Time | Presented paper |
|-------------|--|
| 17:30-17:49 | Assessment of potential territorial suitability for the sustainable production of the “Acquaviva Red Onion” (<i>Allium cepa</i> L.): A study using overlapping approach <i>Ruggiero G., Parlavecchia M., Santoro F., Pascuzzi S.</i> |

Topic 05 - Smart Farming and sustainability

| Time | Presented paper |
|-------------|--|
| 17:50-18:09 | Applicability and efficiency of remote monitoring of agricultural crops <i>Atanasov A., Mihaylov R., Mihova G.</i> |
| 18:10-18:29 | Image analysis in the assessment of homogeneity of fine-grained mixtures <i>Matuszek D.B., Biłos Ł.A., Królczyk J.B.</i> |
| 18:30-18:49 | The use of farm digital tools in crop production in Wallonia: situation, key points and actors <i>Ho T.M.H., Burny P.</i> |
| 18:50-19:09 | Effect of digestate fertilization on the quality of beans <i>Koszel M., Parafiniuk S., Kocira S., Atanasov A.Z., Przywara A., Kraszkiewicz A.</i> |
| 19:10-19:29 | On-line Pest Warning System - support for agriculture and transfer from science to practice <i>Tratwal A., Jakubowska M., Baran M.</i> |
| 19:30-19:49 | Selected Problems on Data Used in Precision Agriculture <i>Lorencowicz E., Uziak J.</i> |

13 June 2022
Parallel Session 3
Polyfunctional centre – Hall 2 – Piazza Cesare Battisti, 1



| Topic 02 - Management of biomass and agroenergy production | |
|---|---|
| Time | Presented paper |
| 14:30-14:49 | The methane potential of corn cob cores <i>Pawłowski A., Wojcieszak D., Przybył J.</i> |
| 14:50-15:09 | Energy comparison of corn stover fraction <i>Wojcieszak D., Pawłowski A., Przybył J.</i> |
| 15:10-15:29 | Reducing emissions from biomass boilers with passive air supply <i>Maciej J., Ekielski A., Joński J., Świętochowski A.</i> |
| 15:30-15:49 | Economic effects of food industry waste management in the context of sustainable development <i>Starek-Wójcicka A., Stoma M., Osmólska E., Rydzak L., Sobczak P.</i> |
| 15:50-16:09 | Ranking of Plant Biomass by Fuel Value Index <i>Kraszkievicz A., Przywara A., Koszel M., Parafiniuk S.</i> |
| 16:10-16:29 | Energetic potential of dairy cow breeding in Poland <i>Bojarski W., Pulka J., Pochwatka P., Bresz P., Nowak M., Dach J.</i> |
| 16:30-16:49 | Effect of mechanical treatment on the efficiency of methane fermentation of biowaste <i>Bresz P., Pulka J., Bojarski W.</i> |
| 16:50-17:29 | <i>Coffee break</i> |

14 June 2022
Technical visits & Gala diner
Gioia del Colle(BA) – Rutigliano (BA) – Bari



- 09:00 – 13:00** **Dairy farm technical visit**
“Gioiella latticini, F.Ili Capurso” – Gioia del Colle (BA)
- 13:30 – 15:00** **Lunch**
“Lama San Giorgio” – Rutigliano (BA)
- 15:15 – 19:00** **Pasta factory technical visit**
“Divella SpA” – Rutigliano (BA)
- 20:00** **Gala dinner**
“Hotel delle Nazioni” – Roof garden - Lungomare Nazario Sauro, 7 - Bari

15 June 2022
Social - Cultural activities
Alberobello (BA)



- 09:00 – 13:00** **Visit of UNESCO World heritage: Alberobello**
- 13:00 – 15:00** **Lunch**
“L’aratro” – Via Monte San Michele, 27 – Alberobello (BA)