EUCYS 2022 Prizes

33rd European Union Contest for Young Scientists, Leiden

The First Prize

| Name | Gender/Age/Nat. | Project title |
|------------------------|------------------------|---|
| Aditya Kumar | Male 15 Ireland | A New Method of Solving the Bernoulli Quadrisection Problem |
| Aditya Joshi | Male 15 Ireland | A New Method of Solving the Bernoulli Quadrisection Problem |
| Andreas Strommer | Male 19 Austria | Vertical axis wind turbine with integrated centrifugal flaps |
| Michael Lukas Strudler | Male 19 Austria | Vertical axis wind turbine with integrated centrifugal flaps |
| Meda Surdokaitė | Female 19 Lithuania | Optimization of the Synthesis of the Fluorescent Dye "Nile Red" |
| Konrad Basse Fisker | Male 19 Denmark | Integration of Dsup in Nannochloropsis Oceanica |

The Second Prize

| Name | Gender/Age/Nat. | Project title |
|---------------------------|-----------------------------|--|
| Veronika Martinková | Female 19 Czech Republic | Rearrangements of N-aryl hydroxamic acid methanesulfonates |
| Radostin Lozanov Cholakov | Male 16 Bulgaria | The GatedTabTransformer. An Attention- Based Deep Learning Architecture For Tabular Modeling. |
| Hanze (Louis) Wu | Male 17 Canada | FourSight: Analysis of Cancerous Genetic Profiles With Artificial Neural Networks |
| Koral Kulacoglu | Male 17 Canada | FourSight: Analysis of Cancerous Genetic Profiles With Artificial Neural Networks |
| Jakub Gál | Male 19 Slovakia | Optimized CNN implemented on TPU camera on autonomous robot and open-source analogue neural network accelerator with a parallel pipeline |

The Third Prize

| Name | Gender/Age/Nat. | Project title |
|----------------------------|---------------------|--|
| Angelos-Michail Chouvardas | Male 18 Greece | E-aimodotes/Information system and immediate notification of blood donation needs |
| Aleandro Kurtidhis | Male 17 Greece | E-aimodotes/Information system and immediate notification of blood donation needs |
| Gaetan Barette | Male 17 Belgium | Automated Darts Robot |
| Annabelle Rayson | Female 17 Canada | Plankton Wars: An Innovative Analysis of Daphnia Genotype Biomanipulation for Algae Bloom Prevention |
| Bartłomiej Bychawski | Male 19 Poland | Some finite index subgroups of the braid group B_3 |

SIYSS

| Name | Gender/Age/Nat. | Project title |
|---------------------|------------------------|---|
| Meda Surdokaitė | Female 19 Lithuania | Optimization of the Synthesis of the Fluorescent Dye "Nile Red" |
| Konrad Basse Fisker | Male 19 Denmark | Integration of Dsup in Nannochloropsis Oceanica |

ESA

| Name | Gender/Age/Nat. | Project title |
|-------------------|-----------------|--|
| Nadezhda Komarova | Female 18 | Reconstruction of the image space depicted |
| | Slovenia | in paintings |

CERN

| Name | Gender/Age/Nat. | Project title |
|------------------------|---------------------|---|
| Steven Ognyanov Spasov | Male 18 Bulgaria | Bidiagonal decompositions of (singular) Vandermonde-type matrices |
| | | |

EUROFusion

| Name | Gender/Age/Nat. | Project title |
|---------------------------|-----------------|--|
| Patricia González Piquero | Female 18 | INFLUENCE OF THE CULTURAL LEVEL IN THE |
| | Spain | EXTINCTION OF HOMO NEANDERTHALENSIS |
| | | IN ITS COMPETITION WITH HOMO SAPIENS: |
| | | ANALYSIS THROUGH THE GAME OF |
| | | CONTESTS |

ESRF

| Name | Gender/Age/Nat. | Project title |
|----------------------|-----------------|---------------------------------------|
| Benedek László Barna | Male 17 | Developing a Motorized UV Illuminator |
| | Hungary | Device for Photochemical Ligand- |
| | | Binding |

EMBL

| Name | Gender/Age/Nat. | Project title |
|------------------------|-------------------|---|
| Alexander Marks | Male 18 Norway | Antibiotic-induced Release of Lipopolysaccharide from Escherichia Coli |
| August Andre Lukkassen | Male 19 Norway | Antibiotic-induced Release of Lipopolysaccharide from Escherichia Coli |
| Martin Thormodsrud | Male 19 Norway | Antibiotic-induced Release of Lipopolysaccharide from Escherichia Coli |

ESO

| Name | Gender/Age/Nat. | Project title |
|-----------------|----------------------|--|
| Vanessa Guthier | Female 19 Germany | A solution for the enigma of gamma rays: Star clusters creating gamma sources |

ILL

| Name | Gender/Age/Nat. | Project title |
|------------|---------------------------|--|
| Kahan Petr | Male 19 Czech Republic | Preparation and characterization of spin polarized tips for tunneling microscopy |

XFEL

| Name | Gender/Age/Nat. | Project title |
|--------------------------|------------------------|---|
| Maximilian Peter Theimer | Male 19 Switzerland | 3D printing a geometry optimized BMX sized bike frame at home |

JRC

| Name | Gender/Age/Nat. | Project title |
|-----------------------------|-----------------------------|--|
| Alice Louise Heiman | Female 19 Sweden | Exposure to Fine and Ultrafine Particles in the Stockholm Subway |
| Alicia Hedvig Helena Larsen | Female 20 Sweden | Exposure to Fine and Ultrafine Particles in the Stockholm Subway |
| Jitka Waldhauserová | Female 19 Czech Republic | The influence of lanscape on nest preferences and behavior of twig nesting Hymenoptera |
| Anish Reddy Athmakoor | Male 18 Norway | What is the price elasticity of demand (PED) of sugary foods for teenagers at an online sweet shop located in Stavanger, Norway? |

CNIC Prize

| Name | Gender/Age/Nat. | Project title |
|-----------------|-----------------|---------------------------------------|
| Lucia Cengelova | Female 20 | Computational design and experimental |
| | Slovakia | construction of stable enzymes |
| | | |

CBE JU

| Name | Gender/Age/Nat. | Project title |
|-----------------------------|---------------------|--|
| Lucas Joaquim Sousa Dória | Male 16 Portugal | Use of banana tree cellulose pulp for the removal of microplastics from contaminated water |
| José Tiago Fernandes Vieira | Male 18 Portugal | Use of banana tree cellulose pulp for the removal of microplastics from contaminated water |

Swiss talent forum

| Name | Gender/Age/Nat. | Project title |
|---------------------|-----------------|---------------------------------|
| Gabriela Szczepanik | Female 19 | Penetration field preference of |
| | Poland | pollinators |

Expo-Sciences Luxembourg

| Name | Gender/Age/Nat. | Project title |
|----------------------------|----------------------|--|
| Jasmin Schalli | Female 19 Austria | Finding a specific agent and its dosage against American foulbrood |
| Lorenz Paul Hinterplattner | Male 20 Austria | Finding a specific agent and its dosage against American foulbrood |
| Markus Bollwein | Male 20 Austria | Finding a specific agent and its dosage against American foulbrood |

EuCheMS

| Name | Gender/Age/Nat. | Project title |
|------------|-----------------------|--|
| Ema Bojnec | Female 19 Slovenia | A linear structure notation for compounds for the blind in chemistry |
| Daša Žuman | Female 20 Slovenia | A linear structure notation for compounds for the blind in chemistry |

Naturalis Prize

| Name | Gender/Age/Nat. | Project title |
|------------------------|-----------------|---|
| Lukass Roberts Kellijs | Male 18 | Forest Damage – Bark Beetle Identification |
| | Latvia | Using Remote Sensing in Latvian Territories |
| | | |

Founding Partners Award

| Name | Gender/Age/Nat. | Project title |
|---------------------------------|----------------------|--|
| Nóra-Anna Kovács | Female 17 Hungary | Rusty, The Social Mirror Technology |
| Oleh Ivankiv | Male 17 Ukraine | The Newest Smart Charging Station "Aker" |
| Eslam Mohamed Amen Nasr Mostafa | Male 18 Egypt | The Green Gold |

Workshop on Coding Theory

| Name | Gender/Age/Nat. | Project title |
|------------------|--------------------|--|
| Miro Keimiöniemi | Male 19 Finland | The Pricing of Digital Goods in the Music Production Software Industry |
| | rillaliu | Production Software industry |

Wolfram Research

| Name | Gender/Age/Nat. | Project title |
|--------------------------------------|---------------------|--|
| ÇAĞAN KOSKA | Male 16 Turkey | Classification of MGMT methylation status of glioblastoma in MRI images with AI |
| Steven Ognyanov Spasov | Male 18 Bulgaria | Bidiagonal decompositions of (singular) Vandermonde-type matrices |
| Pedro Filipe Pinho Oliveira | Male 19 Portugal | From experimental approximation to the order of magnitude of theoretical probability |
| José Pedro Soares Marques dos Santos | Male 19 Portugal | From experimental approximation to the order of magnitude of theoretical probability |
| AHMET ÇAĞDAŞ GİRİT | Male 19 Turkey | Ratio Of Surface Areas For n Idendical Polygons And A Line Istercesting With Them |
| Mathilde HAMELIN | Female 17 France | Can we freeze a soap bubble ? |
| Zoé MORIN | Female 17 France | Can we freeze a soap bubble ? |
| Rémi DEFORGE | Male 17 France | Can we freeze a soap bubble ? |
| Aditya Kumar | Male 15 Ireland | A New Method of Solving the Bernoulli Quadrisection Problem |
| Aditya Joshi | Male 15 Ireland | A New Method of Solving the Bernoulli Quadrisection Problem |

| Angelos-Michail Chouvardas | Male 18 | E-aimodotes/Information system and |
|---------------------------------|-------------|--|
| | Greece | immediate notification of blood donation |
| Aleandro Kurtidhis | Male 17 | needs E-aimodotes/Information system and |
| Aleanuro Kurtianis | Greece | immediate notification of blood donation needs |
| Sjoerd Joost Auke Versteegh | Male 18 | Composer classification: neural networks |
| | Netherlands | and harmonic analyses |
| Nadezhda Komarova | Female 18 | Reconstruction of the image space depicted |
| | Slovenia | in paintings |
| Panteleimon Kobakhidze | Male 18 | Air Ionizer Working Using Carbon Nanofibers |
| | Georgia | |
| Ali Asgarov | Male 18 | Air Ionizer Working Using Carbon Nanofibers |
| | Georgia | |
| Arvin Kiarmin Vilhelm Björkgren | Male 19 | A Comparative Analysis Between |
| | Sweden | Tomosynthesis and Conventional X-ray Modalities in Mammography |
| Nikita Arskyi | Male 16 | Number, Sum and Product of Divisors of |
| | Ukraine | Positive Integer |
| Radostin Lozanov Cholakov | Male 16 | The GatedTabTransformer. An Attention- |
| | Bulgaria | Based Deep Learning Architecture For Tabular Modeling. |
| Anastasija Paškeviča | Female 19 | Filter-electrolyzer as an effective device for |
| | Latvia | disposing of microplastics in wastewater |
| Ērika Plopa | Female 19 | Filter-electrolyzer as an effective device for |
| | Latvia | disposing of microplastics in wastewater |

| Vanessa Guthier | Female 19 Germany | A solution for the enigma of gamma rays: Star clusters creating gamma sources |
|--------------------------|---------------------------|---|
| BERRA ÖKMEN | Female 17 Turkey | Quantum Dot Doped Boron Source Hydrogen Fuel Cell |
| BATUHAN BOSTAN | Male 16 Turkey | Quantum Dot Doped Boron Source Hydrogen Fuel Cell |
| LIDER ÖNGEN | Male 17 Turkey | Quantum Dot Doped Boron Source Hydrogen Fuel Cell |
| Anouar-Elmehdi BOUHADJAR | Male 18 France | Bipolarity and instabilities in neuronal networks |
| Alexeï LOCHAKOV | Male 17 France | Bipolarity and instabilities in neuronal networks |
| Madeline MADDOCK | Female 18 France | Bipolarity and instabilities in neuronal networks |
| Bartłomiej Bychawski | Male 19 Poland | Some finite index subgroups of the braid group B_3 |
| Pierre Ates | Male 17 Belgium | 3D Calls : Make them come out of the screen |
| Jakub Gál | Male 19 Slovakia | Optimized CNN implemented on TPU camera on autonomous robot and opensource analogue neural network accelerator with a parallel pipeline |
| Kahan Petr | Male 19 Czech Republic | Preparation and characterization of spin polarized tips for tunneling microscopy |

EUCYS2022, LEIDEN

| Alfrēds Saročinskis | Male 18 Latvia | New conjectures of primes distribution in natural numbers sequence |
|---------------------|-------------------|--|
| Petr Gabuniia | Male 17 Latvia | New conjectures of primes distribution in natural numbers sequence |