



EU Contest for
Young Scientists
Leiden2022



FORMER WINNERS

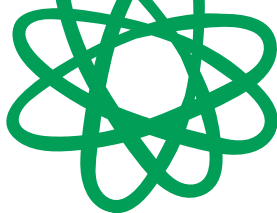


1989 — 2021



Funded by
the European Union

ALL FORMER WINNERS



BRUSSELS 1989

FIRST PRIZES

Mogens Markussen
DENMARK
Eyewriter, an eye operated control unit

Stephan Schlitter
GERMANY
Conducting polymers in batteries

Grace O’Connor, Sinead Finn
IRELAND
A crop fractionation industry
Lina Tomasella
ITALY
Toxicity of colour dyes used as tracers

Nicola Kirk
UNITED KINGDOM
Walking aid for a disabled person

Jean-Pierre Wyss, Matthias Zimmermann, Elmar Artho
SWITZERLAND
Recognition of handwritten signs

SECOND PRIZES

Serge van der Velde, Olivier Camberlin
BELGIUM
Computer-guided solar furnace

Charles Courtin, Pierre Betsch, Hugues Nodet
FRANCE
A Doppler rocket

Menno Bolt, Eric Toonen, Pascal Stevelmans
NETHERLANDS
Wind energy project

Mark Mathieson
UNITED KINGDOM
Voice intensity feedback for speech handicapped

Halldor Fossa
NORWAY
Expert systems in cancer treatment

Anouk Thommen
SWITZERLAND
Comparative study of two composts
THIRD PRIZES

Samuel Delaere
BELGIUM
Electromagnetic radiation

Dimitri Hautot
BELGIUM
Studies on the Kelvin generator

Stephan Røntved, Søren Chyltoft
DENMARK
LISSI, an I. C. Test Computer

Matthias Büger
GERMANY
Axiomatic theory of mean values

Walter Georg Veeck, Jens Schneider
GERMANY
Construction of a diffusion cloud chamber

Dimitri Theocharidis, Paul Magoulas
GREECE
New Dimension 2000, an automation system with computer

Fermín Tabar, Luis Rodríguez, Antonio Sánchez
SPAIN
Multi-use interface applied in a greenhouse

Juan Navas, José Ortega, José Navas
SPAIN
Computer-based sound synthesis system

Benoît Landeos, Bertrand Dubois, Alain Crusoe
FRANCE
Wheelchair adapted for racing

Patrick Mora, Jean-François López

FRANCE
Meteorological imaging

Enrico Corsini
ITALY
Solar spots

Valerio Emma
ITALY
The rhopaloceros insect

Marc Pauly, Gérard Milmeister
LUXEMBOURG
The fantastic world of fractals

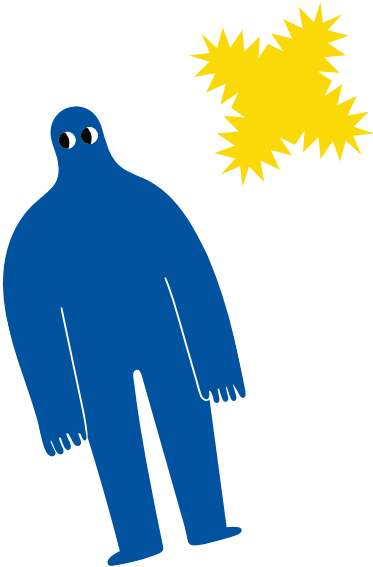
Yves Thill, Serge Remesch
LUXEMBOURG
Mapograph, a computer-aided writer

Manuel van den Bergh, Lauren Smit, Mathieu van Geffen
NETHERLANDS
CHIP, a computer hardware instruction project

Paulo Ribeiro
PORTUGAL
Diving patterns of the bottlenose dolphin

Reinhard Herzog
AUSTRIA
An electronic plotter

Stein Ringnes, Ingvar Apeland, Jarand Felland
NORWAY
Solar energy project



COPENHAGEN 1990

FIRST PRIZES

Paul Vauterin, Bruno Callens
BELGIUM
Automated meteor observation station

Waltraud Schulze
GERMANY
The effect of assimilatory starch for the growth of Arabidopsis

Annagh Dalton (née Minchin)
IRELAND
Colpomenia Peregrina, an immigrant alga to Europe

Donatella Manganelli
ITALY
Silence, micro-organisms at work

Brian Dolan, Lee Kiera, Ann Marie Malon
UNITED KINGDOM
A study of the transition to turbulence in Reynold’s experiment

Marco Ziegler
SWITZERLAND
Drinking water examination with special consideration of corro-sional aspects

SECOND PRIZES

Morten Larsen
DENMARK
Hand reader

Jan Lichtenberg
GERMANY
Unilyser, a universal computer system for chemical analysis

Stefan Scheller
GERMANY
Computer-aided holography for optical and acoustical recon-struction

Beatriz Pías, Mercedes Pías, Ana Riveiro
SPAIN
The Atlantic brushwood as a natural resource

Gianni Insacco
ITALY
Fossil remains in vertebrates in continental Pleistocene deposits in the region of Comiso, South-East Italy

Ian Thompson, Graham Miller
UNITED KINGDOM
Investigation of oils used in soap manufacture

ZURICH 1991

FIRST PRIZES

Robert Nitzschmann
GERMANY
Development and construction of a scanning tunnelling micro-scope

Barry O’Doherty, Daniel Dundas
IRELAND
The dynamics of a two-well potential oscillator

Paul Hoffmann
LUXEMBOURG
Computer assisted text conversion to Braille

Angus Filshie
UNITED KINGDOM
Clearway: a mucus extractor

Christian Tost, Sabine Zangl
AUSTRIA
Catalytic converter restoration

Torkild Jensen
NORWAY
Birdlife in Oslofjord

Hans Jacob Feder
NORWAY
Earthquakes as a self-organised critical process
SECOND PRIZES

Tanja Hindrichs, Hussein Morsy, Axel Conrad
GERMANY
The knight’s Hamiltonian path problem

Nicolas Bouche, Olivier van der Aa
BELGIUM
Flight study of a micro-rocket
Valerio Arnáiz, José Mora, Alexandre Girone
SPAIN
Astrometry: the measurement of comet positions

Henk Hoekstra, Christian Kok
NETHERLANDS
Oscillating systems of chemical reactions

Edwin Thaller, Friedrich Pfluegelmeier
AUSTRIA
Intelligent testing probe

Christof Teuscher, Flavio Stragiotti
SWITZERLAND
Aiolos II: development of a wind measuring computer system

SEVILLE 1992

FIRST PRIZES

Hendrik Küpper, Frithjof Küpper, Martin Spiller
GERMANY
Environmental relevance of heavy metal ubstituted chlorophylls

Oliver Trapp
GERMANY
Study on the effect of a chelator on yeast

Anders Skov
DENMARK
The bent perspective

Martin Hesselsoe
DENMARK
Green toad (Bufo Viridis) in the great belt

Jean Byrne, Elizabeth Dowling
IRELAND
Population dynamics of a thistle predator: Terellia Serratulae

Dominik Zeiter, Ewald Amherd, Reinhard Fubber
SWITZERLAND
Graphtal plants varieties of trees

SECOND PRIZES

Ingolf Zies
GERMANY
New global lighting model based on radiosity

Raoul Urlings
BELGIUM
10 channel vocoder

Clement Stefanutti, Aurélie Vidal, Julie Morere
FRANCE
Palynology - Historic botany

Panagiotis Theofanidis, Nick K. Tsagourias
GREECE
Research and development of a traffic light system

Luis Bellot Rubio, Antonio Román Reche, Gustavo Román Reche
SPAIN
Analysis of visual observations of the comet Levy

Jochen Erhard, Cristoph Herbst
AUSTRIA
Electronical regeneration of FeC12/FeC13 compounds in metal etching processes with an environmental and economic focuss

BERLIN 1993

FIRST PRIZES

Henrik Mouritsen
DENMARK
Abiological expedition to the rainforests of the Philippines

Lars Knudsen, Peter Andersen
DENMARK
Droppy, the computer controlled intravenous drip feed

Albert Barmettler, Günther Ederer
AUSTRIA
An alarm processing system

Jan Haugland
NORWAY
The minimum overlap problem of Paul Erdös

Rodger Toner, Donal Keane
IRELAND
Mate selection by a male crustacean

María Salvany González, Antoni Camprubí I Cano, Fidel Costa Rodríguez
SPAIN
The geological mapping of a Neolithic mine

SECOND PRIZES

Jan-Cristoph Puchta
GERMANY
Fermat’s last theorem

Pierre Oger
BELGIUM
Oil (hydrocarbon) recovery from water

Eleonora Bonanomi, Stefano Consonni, Mircko Signorelli
ITALY
Use of biogas in a photosynthetic culture

Daniel Morton, Tim Mullis
UNITED KINGDOM
A palletiser improvement

Peter Seidel
GERMANY
Ball lightning, an investigation

Jürgen Scherschmidt, Jochen Scherschmidt
GERMANY
A user-friendly video recorder

FIRST PRIZES

Oliver Krüger
GERMANY
The ecology of the common buzzard and goshawk

Eike Lau
GERMANY
Internal addresses in the Mandelbrot set

Jane Feehan
IRELAND
The Calluna Case-Carrier

Christian Krause
DENMARK
Telephone break-in security

Henrik Ström
NORWAY
An anti-boot virus program

Samuel Schaer
SWITZERLAND
Supersonic plasma rings

SECOND PRIZES

Ivan Labanca
ITALY
A diffusion cloud chamber with magnetic field

Gijs van Oort
NETHERLANDS
A computer controlled flute

Jan Ivar Oeyulvstad
NORWAY
Flood prevention in the river Otra in Southern Norway

Nuno Alves da Silva, Hugo Macedo
PORTUGAL
Image processing using a neural network

Stefan Serefoglou
GREECE
The two-to-one way rotation converter

Fernando Toro Chicano, Ricardo Peñafiel Gil, Santiago Hervás Morales
SPAIN
A new age plotter

THIRD PRIZES

Amina Azami, Chemseddine Bega
BELGIUM
Bio-indicators

Kai Eberspächer, Dominik Zayer, Andreas Gorbach
GERMANY
Computer-controlled waste-water purification

Padelis Ermilios
GREECE
Using computers in physics experiments

Vagelis Papadopoulos
GREECE
Extension of the integral calculus

Guillermo Guerrero Guerrero, Javier Villegas, Javier Rodríguez
SPAIN
Beewax recovery using solar energy

Eduardo Moling González, Ruth Morena, José Manuel Brell
SPAIN
Water rocket

Séverine Meynieux, Catherine Khamphan, Marie Montanard
FRANCE
Peat bogs fossils: unmasking the past

Nicolas Rebierre, Olivier Rebierre, Olivier Pesle
FRANCE
Real speed

Stéphan Fidanza, Olivier Pesc
FRANCE
Space-time theory

Sara Azimonti, Elena Porazzi, Giovanni Colombo Bolle
ITALY
Asbestos: properties, manufacturing, applications, legislation

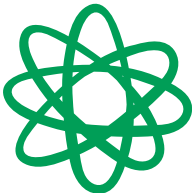
Patrick Neuberg
LUXEMBOURG
Improved cell sectioning

Necibe Gezer
NETHERLANDS
Teenage restlessness in a Dutch town

Jorgen Carling
NORWAY
Examining voting patterns

Martin Franz Waldmann, Johannes Lackner, Josef Schmidbauer
AUSTRIA
Solar energy to ecological fuel

Jürgen Hintermayer, Attila Agoston



AUSTRIA
Brain waves and artificial intelligence

Michael Schachinger, Thomas Wetzlmaier, Jürgen Zauner
AUSTRIA
Telephoning via computer networks

Paulo Alexandre Machado
PORTUGAL
A real time digital spectrograph

Ana Simoes das Neves
PORTUGAL
The pharmacology of medicinal plants

Kaarlo Väisanen
FINLAND
Production of fullerenes by Draetschmer-Huffman's method

Magnus Viström, Pontus Forslund, Robert Hagglund
SWEDEN
A car hand brake: a potential life saver?

Annika Nyström
SWEDEN
From Salix Alba to modern medicine

Johanna Larnhed
SWEDEN
Antifouling

Caroline Turner
UNITED KINGDOM
A time interval analyser

Samantha Haines
UNITED KINGDOM
An electornic physiotherapy aid

Rebecca Anderton, Aaron Weller, Morgan Jones
UNITED KINGDOM
Delayed failure in ultra-high strength steels

Michael P. Germeyer-Petyke, Alexander Pohl
EU SCHOOLS
Vitamin C synthesis in germinating cress seedlings

Tamas Nagy, Sandor Mezei
HUNGARY
A Braille printer and school notebook for the blind

Daniel Kiss, Agnes Majoros, Lajos Kovacs
HUNGARY
Universal clamping head for industrial robots

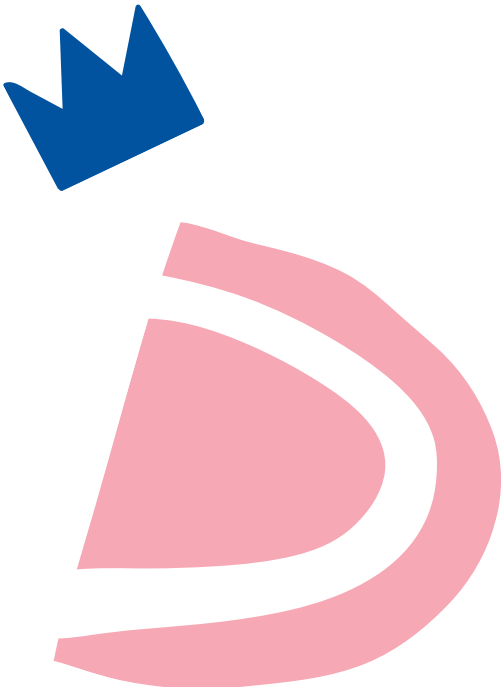
Robert Varga
HUNGARY
Computerised navigation

Roman Evtushenko, Evgueni Milioutine, Evgueni Chelkovo

UKRAINE
Biohumus production by the red Californian worm

Serguei Semeniouk, Alla Atepalikhina, Karim Naser
UKRAINE
The role of the thiamine in neutrophil phagocytic activity in smokers and nonsmokers

Kenna Mills, Diego Figueroa
USA
Water detoxification using duckweed



NEWCASTLE UP-ON-TYNE 1995

FIRST PRIZES

Sven Siegle
GERMANY
Natural pulping or paper from straw

Brian Fitzpatrick, Shane Markey
IRELAND
Plants can tell us when they need a drink of water

Christopher Mead, Matthew Taylor
UNITED KINGDOM
Radio waves from comet Shoemaker-Levy 9

SECOND PRIZES

Tycho van Meeuwen
NETHERLANDS
The witty wise writing writer

Nina Fraefel
SWITZERLAND
Biochemical control of salmonella in poultry feed

Oliver Hantschel, Kai Krüger, Nicole Stroh
GERMANY
Is isoguanine selectively mutagenic during virus replication?

THIRD PRIZES

Aldis Helga Egildsdottir,Reynir Hjalmarsson
ICELAND
The Icelandic capelin: a behaviour study

Frank Ekpar, Erik Sos
HUNGARY
Mobile robots: motorless motion using shape memory alloy actuators

Klaus Mazanti Soerensen
DENMARK
Factorising factorials and Bertrand's postulate for primes 4k+3

Marcin Kowalczyk, Marcin Sawicki
POLAND
The force of a set and the Euler characteristic

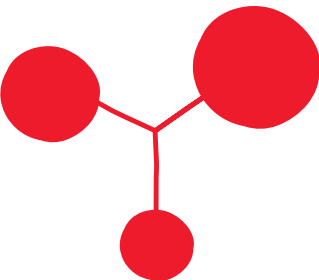
Gergely Eberhardt
HUNGARY
A virus recognition programme to prevent computer infection

Michael Vorburger

SWITZERLAND
A fruity approach to memory management in C++

Roddy Vann
UNITED KINGDOM
The manufacture of closed-cage molecules in electric arcs

Alberto Lerena, Ricardo Martín, Víctor Sanz
SPAIN
A brake based on magnetically solidified fluid



HELSINKI 1996

FIRST PRIZES

Tobias Kippenberg
GERMANY
A car ice-detection system based on electromagnetic waves

Yann Ollivier
FRANCE
Flexibility of an articulate lattice

Wouter Couzijn
NETHERLANDS
“Locator”, a self-positioning robot

SECOND PRIZES

Emil Laslo
HUNGARY
Braille display

Maciej Kurowski, Tomasz Osman
POLAND
Common solution sets of real polynomials

David Kelnar
UNITED KINGDOM
AMES, the accessible multimedia education system

THIRD PRIZES

Andreas Derr
GERMANY
MediNet: an intelligent system for medical diagnosis

George Almpanis, Despina Scholidou
GREECE
Boundaries and stellar content of the LH52 and LH53 associations

Patricia Lyne, Rowena Mooney, Elsie O’Sullivan
IRELAND
Analysis of indigenous Irish strains of honeybee

Radoslaw Skibinski
POLAND
The Oligocene fish: discovery and reconstitution

Thomas Bürg
SWITZERLAND
An intelligent six-legged walking machine

Justin Marston
UNITED KINGDOM
The dripping tap as a model chaotic system

MILAN 1997

FIRST PRIZES

Eike Hübner
GERMANY
Permanent self-conducting polymers

Fiona Fraser, Ciara McGoldrick, Emma McQuillan
IRELAND
Unravelling the secrets of the preservation of Europe's bog bodies

Christoph Lippuner, Antoine Wüthrich
SWITZERLAND
The digestive system of carnivorous plants

SECOND PRIZES

Sebastian Hauer, Jan Nieberle
GERMANY
A circular saw active security-system

Bernardo Silva e Carmo
PORTUGAL
A control centre for school experiments

Serguei Idiatoulin
RUSSIA
The preparation of chromiferous coatings to absorb solar energy

THIRD PRIZES

Álvaro Luis Maroto Conde
SPAIN
Paravision 1.0: window access for visually impaired

Thierry Caramigeas, Vivien Moliton, Michael Pressigout
FRANCE
A microwaves controlled household management system

Gábor Ivánka
HUNGARY
MATIKA: the game to solve your mathematical problems

Erik van Alphen, Tom van Diessen
NETHERLANDS
Less waste with bricks

Anni Könönen
FINLAND
Human impact on forest vegetation

Daniel Atwood, Andrew Teesdale
UNITED KINGDOM
How ecalyptus resins can prevent seeds from germination

PORTO 1998

FIRST PRIZES

Gabor Bernath
HUNGARY
ScanGuru: the 3D scanner

Paul Pak, Peter Weilenmann
AUSTRIA
The virtual blind man's cane

Robert Carney, Matthew Tomas
UNITED KINGDOM
Yellowing of alkyd-based paints in the dark

SECOND PRIZES

Karsten Weiss
GERMANY
Digi Cow: a completely new type of milking machine

Arthur Baas, Adrian de Groot, Chris Weel
NETHERLANDS
POSEIDON: the wave-motion power generator

Dasa Suput
SLOVENIA

Sea anemones

THIRD PRIZES

Enrik Eriksen
DENMARK
KOMBI-2: a novel approach soil preparation and sowing

Juliane Richter
GERMANY
The phenomenon of fluctuation in concentration

Montserrat Coll Lladó, Mariona Picart Merino
SPAIN
Commercially viable sardine anchovy fish production

Raphael Hurley
IRELAND
The mathematics of monopoly

Grzegorz Kapustka, Michael Kapustka
POLAND
Some propertioes of polygons

Maxim Sergeev
RUSSIA
A new method to process some production waste

THESSALONIKI 1999

FIRST PRIZES

Sarah Flannery
IRELAND
Cryptography: a new algorithm vs. the RSA

Sverrir Gudmundsson, Pall Melsted, Tryggvi Thorgeirsson
ICELAND
The galaxy cluster MS1621 +2640

Michal Ksiazkiewicz
POLAND
Estimation of urban pollution using Epiphytic Lichens

SECOND PRIZES

Sebastian Gschwende, Michael Rödel
GERMANY
FinoPro simulates mechanical events, using finite elements

Lorraine Ruzié
FRANCE
Submarine volcano emergence forecasting device

Jure Leskovec
SLOVENIA
Detection of human bodies from a sequence of images

THIRD PRIZES

Patrick Imper, Raphael Zulliger
SWITZERLAND
Speedometer for roller blades

Arllet Bellvehi Sampera, Joan Munich Arranz
SPAIN
Reestablishment of amphibian population despite exotic fish threat

Maciej Walczak
POLAND
Chemical synthesis of amionalkyl nucleoside phosphates

AMSTERDAM 2000

FIRST PRIZES

Grzegorz Niedzwiedzki
POLAND
New Finds of dinosaur tracks in the Holy Cross Mountains

Joanne Daniel, Gemma Dawson, Ally Wilkie
UNITED KINGDOM
Designing a disposable sample device

Nickoloz Tchankoshvil
GEORGIA
The monitoring and protection of bats in Georgia

SECOND PRIZES

Vaclav Rehak
CZECH REPUBLIC
Prisoners dilemma: modelling of social phenomena using cellular automata

Janez Langus
SLOVENIA
Theoretical and practical aerodynamics

Jasmin Roya Djannatian
GERMANY
Cytotoxicity of different mistletoe preparations on leukaemic cells
THIRD PRIZES

Florent Durrey
FRANCE
Globular clusters around the Milky Way

Gàbor Guta
HUNGARY
Simulator with ultra low noise

Yevgen Nazarenko
UKRAINIA
The processing of aluminous manufacture after-product
Travel award to the Noble Prize Ceremony

Jasmin Roya Djannatian
GERMANY
Cytotoxicity of different mistletoe preparations on leukemia cells

Anastasiya Efimenko
UNITED KINGDOM
My challenge to children's mortality

BERGEN 2001

FIRST PRIZES

Thomas Aumeyr, Thomas Morocutti
AUSTRIA
CURE - Controlled Ultraviolet Radiation Equipment

Sebastian Abel
GERMANY
Cloud

James Lee Mitchell
UNITED KINGDOM
Characteristics of Azole drug resistance in candida tropicalis
SECOND PRIZES

Bálint Pato
HUNGARY
Stress proteins as constituents of the Microtrabecular Lattice

Zbigniew Lech Pianowski
POLAND
New liquid crystal for holography

Marcin Wojnarski
POLAND
Neural network for solving classification problems

THIRD PRIZES

Jimi Lee Truelsen
DENMARK
A new cryptographic algorithm

Shane Browne, Michael O'Toole, Peter Taylor
IRELAND
Symmetrical shapes formed by poligons

Richard Hulme, Yan Pugh-Jones
UNITED KINGDOM
Analysing the flight of Brazilian humming birds



VIENNA 2002

FIRST PRIZES

Pawel Piotrowski
GERMANY
Special wings and ground effect for efficient transportation

Martin Etzrodt, Martin von der Helm
GERMANY
The slime mold physarum as a model organism for biotesting

Lauri Kauppila
FINLAND
Comparing the Oxidiser/Fuel ratio and heat released from Rocket Fuel Combustion

SECOND PRIZES

Vincent Bougreau, Solene Broner
FRANCE
Are there germs in the highest layers of the atmosphere?

Arnhild Jacobsen
NORWAY
The Physics of a rolling soda can

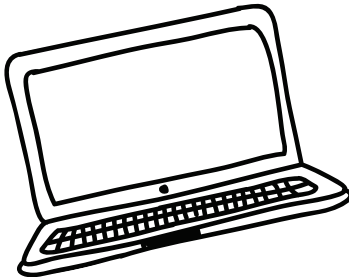
David Sahrla
SLOVENIA
Chemiluminescence

THIRD PRIZES

Maarten Vanhove
BELGIUM
Morphological diversity of cladoceran resting eggs in shallow lakes

Piotr Garbacz
POLAND
Influence of direction and intensity of gravity on plant growth

Ozgur Paksoy, Aslihan Akin Nuriye
TURKEY
A general approach to the proof of inequalities



BUDAPEST 2003

FIRST PRIZES

Jana Ivanidze
GERMANY
pH sensitive GFP mutant

Uwe Treske
GERMANY
Low-cost scanning tunneling microscope

Gábor Németh
HUNGARY
Efficiency enhancement of plasma loudspeakers

SECOND PRIZES

David Sehna
CZECH REPUBLIC
Math studio - a computer algebra system

László Nagy
HUNGARY
Phytocenology and environment protection of the central Hungarian plain

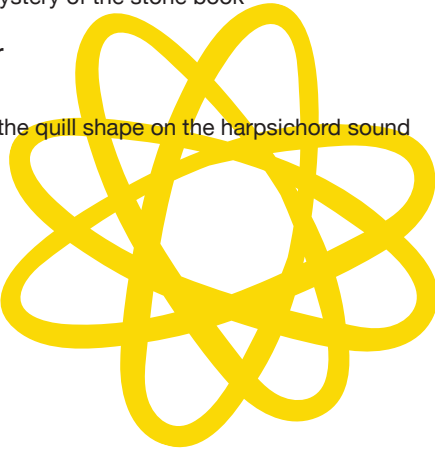
Lukasz Jaremko, Mariusz Jaremko
POLAND
Design and synthesis of two new immuno-suppressants

THIRD PRIZES

Wim Cools
NETHERLANDS
A new compact operating system

Ksenia Rogova
RUSSIA
The key to the mystery of the stone book

Johannes Keller
SWITZERLAND
The influence of the quill shape on the harpsichord sound



DUBLIN 2004

FIRST PRIZES

Martin Knobel, Gerhard Schony, Florian Grossbacher
AUSTRIA | ENGINEERING
Breakthrough in the manufacturing of condenser microphones

Charlotte Stranvist
DENMARK | CHEMISTRY
Improving the method of synthesizing antidepressants

Mario Chemnitz
GERMANY | PHYSICS
Ultrasonic detector for gas chromatography

SECOND PRIZES

Marcel Kolodziejczyk
POLAND | MATHEMATICS
A counterfeit coin problem

Roland Bauerschmidt
GERMANY | COMPUTER
Internet access for guests

Mehmet Halit Calayir, Mehmet Cakan
TURKEY | PHYSICS

Construction of a seismograph
THIRD PRIZES

Ocan Sankur
TURKEY | COMPUTER
N-gram based language classification

Artur Lewandowski
POLAND | BIOLOGY
Ants learning process

Laurynas Pliuskys
LITHUANIA | ENVIRONMENT
Hydrochemical analysis of the lakes of Trakai



MOSCOW 2005

FIRST PRIZES

Igor Gotlibovitch, Renate Landig
GERMANY | PHYSICS
Corners in water - unexpected symmetry breaking in fluid dynamics
Javier Lopez Martinez Fortun, Eliecer Perez Robaina, Carlos

Machado Carvajal
SPAIN | BIOLOGY
Sonchus leptacaulis: a new species consolidation in Gran Canaria

Silvana Konermann
SWITZERLAND | MEDICINE
Development of a system for the local prevention of catheter associated urinary tract infection

SECOND PRIZES

Zdenek Janovosky
CZECH REPUBLIC | ENVIRONMENT
Vegetation dynamics of the small forest and open landscape ponds and its historical causes

Stephen Schulz
GERMANY | CHEMISTRY
Lab on the chip - new perspectives with electrons as universal reagent

Patrick Collison
IRELAND | COMPUTER
Croma: a new dialect of lisp

Gitte Ahlquist Jonsson
DENMARK | MEDICINE
Aid for putting on and taking off stockings for handicapped persons

Margus Niitsoo
ESTONIA | MATHEMATICS
Generalizations of the Fibonacci sequence

Eric Deelee, Pierre Haas
LUXEMBOURG | BIOLOGY
Cartography of galls

STOCKHOLM 2006

FIRST PRIZES

Michael Kaiser, Johannes Kienl
AUSTRIA | ENGINEERING
Development of a completely new electro-thermo-mechanical De-Icing system for aircraft

Johannes Burkart, Alexander Joos
GERMANY | PHYSICS
Flight curves of table tennis balls

Tomasz Wdowik
POLAND | CHEMISTRY
Synthesis of a potential (beta)-blocker

SECOND PRIZES

Thomas Gigl
GERMANY | EARTH SCIENCE
Radial velocity measurement of spectroscopic binaries

Michael Marcinkowski
POLAND | MATHEMATICS
On a geometric transformation relating the Euler and Nagel lines

Zoltan Tarjanyi, Csaba Vass
HUNGARY | BIOLOGY
New diagnostic method to define the errors of the apoptosis program

THIRD PRIZES

Georgi Dyankov
BULGARIA | PHYSICS
A method of measurement of refractive indices, birefringence and thickness of a thin anisotropic layer

Aisling Judge
IRELAND | BIOLOGY
The development and evaluation of a biological food spoilage indicator



VALENCIA 2007

FIRST PRIZES

Florian Ostermaier, Henrike Wilms
GERMANY | PHYSICS
Flashing Water Drops

Márton Spohn
HUNGARY | CHEMISTRY
Examination of Plants’ Self-Defence Against Pests

Abdusalam Abubakar
IRELAND | MATHEMATICS
An Extension of Wiener’s Attack on RSA Encryption

SECOND PRIZES

Martina Hafner
AUSTRIA | ENVIRONMENT
Energy from maize straw

Anne-Laure Delaye, Aude Latrive, Astrid Verpeaux
FRANCE | PHYSICS
Can we walk on water?

Yael Amarilyo
ISRAEL | BIOLOGY
Molecular Identification and Characterization of Phytoplasma Bacteria in Grapevines – Another Milestone Saving the Wine Industry

THIRD PRIZES

Julian Glechner, Werner Pollhammer, David Stockinger
AUSTRIA | ENGINEERING
Latent heat storage system (Salt crystal as a new energy storage technology)

Eva Černohorská
CZECH REPUBLIC | MATHEMATICS
Generalization of method of tiling in triangular and hexagonal grid

Florian Schnös
GERMANY | ENGINEERING
SmartCam – Development of a universal 3D-Camera

COPENHAGEN 2008

FIRST PRIZES

Magdalena Bojarska
POLAND | MATHEMATICS
Hamiltonian cycles in generalized

Halin grap, Martin Tkáč
SLOVAK REPUBLIC | ENGINEERING
Tilting of bulk materials based on gravitation principle in cargo railway transport

Elisabeth Muller
UNITED KINGDOM | EARTH SCIENCE
From Microcosm to Magma Oceans: A Lunar Meteorite Perspective

SECOND PRIZES

Michael Mikát
CZECH REPUBLIC | BIOLOGY
Ecology and Ethology of family Lestidae (Insecta: Odonata)

David Wittkowski
GERMANY | PHYSICS
Polygonal structures on rotating fluid surfaces

Émer Jones
IRELAND | ENGINEERING
Research and Development of Emergency Sandbag Shelters

THIRD PRIZES

Aliaksandr Minets
BELARUS | MATHEMATICS
Orbital origamis and stabilizers of stair origamis

Etienne Lalique, Axel Talon
FRANCE | PHYSICS
Phaethon, the solar balloon

Eriks Zaharans, Janis Zaharans
LATVIA | PHYSICS
Monitoring of cardiovascular system

PARIS 2009

FIRST PRIZES

Liam McCarthy, John D. O’Callaghan
IRELAND | BIOLOGY
The Development of a Convenient Test Method for Somatic Cell Count and it’s Importanc in Milk Production

Fabian Gafner
SWITZERLAND | PHYSICS
Dikranos – the airplane with reverse gear
Aleksander Kubica, Wiktor Pilewski
POLAND | PHYSICS
Spiral Zone Plates

SECOND PRIZES

Elodie Aubanel, Jérémy Dargent, Arnaud De Richecour
FRANCE | PHYSICS
Pick Up a Cosmic Wink

Philip Cardona
MALTA | ENGINEERING
Cappucino Logo Printer

Sara Vima Grau
SPAIN | EARTH SCIENCE
From mineral to Romanesque altarpiece: Identification of mineral pigments and reproduction of a Catalan Romanesque altarpiece

THIRD PRIZES

Áron Hunyadi
HUNGARY | ENGINEERING
Walking through (a piece of) time with a timepiece

Stefan Strobel
GERMANY | COMPUTING
Development of a near-infrared vein imaging system

Omri Lesser
ISRAEL | PHYSICS
The Complex Potential and Its Application to the Planning of Dams

LISBON 2010

FIRST PRIZES

Miroslav Rapcak
CZECH REPUBLIC | PHYSICS
Complete Phase Diagram Of CO2 Nanoclusters

David Pegrimiek, Lukasz Sokolowski
POLAND | BIOLOGY
Foraging Strategy Of The Ant Formica Cinerea

Dávid Horváth, Márton Balassi
HUNGARY | SOCIAL SCIENCES
Nature On Your Screen - Computer Based Modeling And Local Area Network In The Education Of Ecology

SECOND PRIZES

Justyna Slowiak
POLAND | BIOLOGY
Biodiversity, Palaeoecology And Taxonomical Position Of Vertebrates In The Middle Triassic Sea Ecosystem In Silesia (sw Poland)

Simon Schuldt
GERMANY | ENGINEERING
Aircraft Of The Future - A Practise based School Project

Luca Banszerus, Michael Schmitz
GERMANY | PHYSICS
Production And Charaterization Of Graphene Devices

THIRD PRIZES

Aleksejs Sazonovs
LATVIA | COMPUTING
Applying Image Recognition Methods For Classification Of Astronomical Images

Davide Giacinto Lucarelli, Niccolò Pozzi, Stefano Sanfilippo
ITALY | MATHEMATICS
An Analysis of the Network

Inês Alexandra, Costa Kristoffer de Sá Høg
PORTUGAL | ENVIRONMENT
Rocks Of The Southwest - The Mysteries Written On The Stone

HELSINKI 2011

FIRST PRIZES

Alexander Amini
IRELAND | COMPUTING
Tennis Sensor Data Analysis: An Automated System for Macro Motion Refinement

Pius Markus Theiler
SWITZERLAND | ENGINEERING
pi Cam - The Development of a Camming Device for Climbing

Povilas Kavaliauskas
LITHUANIA | MEDICINE
The Role of Houseflies (Musca domestica) in Spreading Antibiotic Resistant Bacteria

SECOND PRIZES

Benjamin Walter
GERMANY | PHYSICS
Scanning Tunnelling Microscopy of Coronene Molecules on Germanium (111)

Natalie Mitchell
UNITED KINGDOM | PHYSICS
Auto Focusing Methods for Digital Microscopy

Georgi Atanasov, Georgi Georgiev, Kalina Petrova
BULGARIA | COMPUTING
DriveFreeZ - Driving Simulator

THIRD PRIZES

Alex Bergsåker
NORWAY | SOCIAL SCIENCES
Guanxi – the Significance of Relations and Social Networks in Chinese Business

Michał Miskiewicz
POLAND | MATHEMATICS
The Charm of the ‘mi’ Set

Holly Rees
UNITED KINGDOM | BIOLOGY
Investigation into Embryonic Stem Cell Differentiation



BRATISLAVA 2012

FIRST PRIZES

Mark James Kelly, Eric Doyle
IRELAND | PHYSICS
Simulation accuracy in the gravitational many-body problem

Jakub Nagrodzki
POLAND | CHEMISTRY
Development of molecular patches therapy: trimethylguanosine cap analogues synthesis

Philip Huprich, Manuel Scheipner, Daniel Zind
AUSTRIA | ENGINEERING
Cam Guard

SECOND PRIZES

Nevzet Khasanov
SWITZERLAND | PHYSICS
Diffusion cloud chamber: the visible radioactivity

Jan Michael Rapp, Timo Schmetzer
GERMANY | COMPUTING
Information technology for a feedback control

Asbjørn Christian Nordentoft
DENMARK | MATHEMATICS
Applications of Dirichlet series

THIRD PRIZES

Anna Maria Punab
ESTONIA | SOCIAL SCIENCES
The relationships between academic achievements and happiness among students in secondary education

Anna Julia Kuśnierczak
POLAND | BIOLOGY
Alternative pollination: influence of different ecosystems on the reproduction of red mason bee (*Osmia rufa* L.) on the example of a meadow, an orchard, a forest and an arboretum

Pavel Litvinka
BELARUS | COMPUTING
Development of hardware and software complex for the formation of threedimensional image

PRAGUE 2013

FIRST PRIZES

Perttu Pölönen
FINLAND | SOCIAL SCIENCES
Music A'Clock

Ciara Judge, Emer Hickey, Sophie Healy-Thow
IRELAND | BIOLOGY
A statistical investigation of the effects of diazotroph bacteria on plant germination

Frederick Turner
UNITED KINGDOM | ENGINEERING
Genetics at home: Building a PCR machine and other equipment for setting up a home genetics lab

SECOND PRIZES

Thomas Steinlechner, Dominik Kovacs, Yuki Trippel
AUSTRIA | ENGINEERING
Anastomose Robot Tool - ART

Lennart Kleinwort
GERMANY | COMPUTING
FreeGeo – the world’s first dynamic Android mathematics system app

Jasmin Allenspach
SWITZERLAND | MATHEMATICS
LSLLSLSLLSLSLS – Modern Mathematics in Islamic Mosaics

THIRD PRIZES
Balázs Zsombori
HUNGARY | COMPUTING
PiktoVerb – Giving Everyone a Voice

Daniel Pflueger
GERMANY | PHYSICS
Measuring water waves

Maksim Bezrukov, Aliaksandr Stadolni
BELARUS | MATHEMATICS
Percolation games on Cayley graphs of groups

WARSAW 2014

FIRST PRIZES

Luboš Vozdecký
CZECH REPUBLIC | PHYSICS
Rolling Friction

Mariana de Pinho Garcia, Matilde Gonçalves Moreira da Silva
PORTUGAL | BIOLOGY
Smart Snails

João Pedro Estácio Gaspar, Gonçalves de Araújo
PORTUGAL | MATHEMATIC
A natural characterization of semilattices of rectangular bands and groups of exponent two

SECOND PRIZES

Paul Clarke
IRELAND | MATHEMATICS
Contributions to cyclic graph theory

Aleš Zupančič
SLOVENIA | CHEMISTRY
Self-cleaning fabrics based on nanocovers

Petar Milkov Gaydarov
BULGARIA | MATHEMATICS
Hamming Distance of Polynomials over GF(2)

THIRD PRIZES

Philipp Mandler, Anselm Bernhard PeterDewald, Robin Braun
GERMANY | ENGINEERING
Hexapod - Construction and Programming of a six-legged exploration robot

Matas Navickas
LITHUANIA | BIOLOGY
Flowering Apple Tree “*Malus baccata* x *Malus prunifolia*” in vitro

Ameeta Kumar, Aneeta Kumar
UNITED KINGDOM | MEDICINE
pHLIP? Beacon of hope

MILAN 2015

FIRST PRIZES

Sanath Kumar Devalapurkar
UNITED STATES | MATHEMATICS
On the Stability and Algebraicity of Algebraic K-theory

Michał Bączyk, Paweł Piotr Czyż
POLAND | PHYSICS
The studies of behaviour of single and coupled on-off type oscillators on the example of bottle oscillators

Lukas Stockner
GERMANY | COMPUTING
Statistical modeling of volumescattered light

SECOND PRIZES

Michael Bayrhammer, Florian Thaller
AUSTRIA | MEDICINE
Tendon Tissue Engineering - Development of a Novel Tissue Bio-reactor for Culturing Tendons

Polina Vladislavovna Ledkova
RUSSIA | ENVIRONMENT
Successions of vegetation and recultivation of the anthropogenically changed landscapes in neighborhoods of the Krasnoye settlement and in the Nenets state nature reserve, 2013- 2014

Dominika Katarzyna Bakalarz, Joanna Michalina Jurek
POLAND | MEDICINE
Origami BioBandage - mathematically described multipotential bioimplant based on polymeric nanomaterial modified by hydroxyapatite and stem cells

THIRD PRIZES

Timothy Matthew Logan
NEW ZEALAND | ENVIRONMENT
To Graze or Not to Graze?

Anselm von Wangenheim
GERMANY | PHYSICS
Monopod - Physics at the tipping point

Katariina Kisand
ESTONIA | CHEMISTRY
Synthesis and biochemical characterization of covalent fluorescent probes targeting mitotic protein kinase Aurora A

BRUSSELS 2016

FIRST PRIZES

Ane Kristine Espeseth, Torstein Vik
NORWAY | MATHEMATICS
Motivic Symbols and Classical Multiplicative Functions

Valerio Pagliarino
ITALY | COMPUTING
LaserWAN: laser broadband internet connection

River Connell Grace
USA | BIOLOGY
Shining a Light on the Blind: Evolutionary Regression and Adaptive Progression in the Micro-vertebrate Ramphotyphlops braminus, a Model for Understanding Brain Organization and Complex Neurological Disorders

SECOND PRIZES

Tassilo Constantin Schwarz
GERMANY | COMPUTING
Drone detection system: Detection, tracking and classification of potentially dangerous flight objects for multicopter defence

Keyley Noelle Ting
CANADA | MEDICINE
Analysis of Electrodermal Activity to Quantify Stress Levels in Autism

Ivo Zell
GERMANY | PHYSICS
A wing is enough: An improved flying wing based on a bell-shaped lift distribution

THIRD PRIZES

Tomáš Heger
CZECH REPUBLIC | MEDICINE
Biological activity of essential oils and extracts from narrow-leaved lavender (*Lavandula angustifolia* Mill.) flower

Mari Louise Fufezan, Diana Bura
IRELAND | ENVIRONMENT
An Investigation into the Effects of Enzymes used in Animal Feed Additives on the Lifespan of *Caenorhabditis Elegans*

Yunji Seo, Yongchan Hong
SOUTH KOREA | ENVIRONMENT
Agricultural application of halobacteria and their compatible solutes in enhancing plant salinity endurance

TALLINN 2017

FIRST PRIZES

Karina Movsesjan
CZECH REPUBLIC | BIOLOGY
The role of RAD51 mutations in cancer development

Adam Jan Alexander Ohnesorge
SWITZERLAND | SOCIAL SCIENCES
The forgotten prisoners – Civilian prisoners of the Great War in Corsica

Danish Mahmood
CANADA | ENGINEERING
W.I.N.I.T.S. (Wireless Interconnected Non-Invasive Triage System)

SECOND PRIZES

Kamil Humański
POLAND | ENVIRONMENT
Taxonomic diversity of the Middle Ordovician – early Silurian echi-noderms from Siljansringen, Sweden

Yana Zhabura
UKRAINE | ENGINEERING
Enhancement of technical capabilities of delta robot

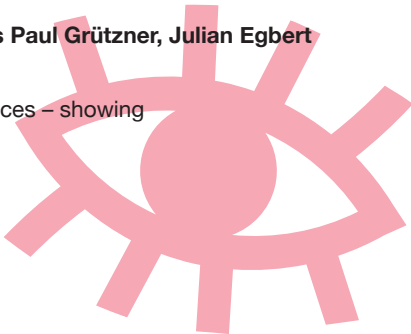
Colette Benko
CANADA | MEDICINE
Novel Pediatric Cancer Therapy: Targeting Epigenetics to Induce Differentiation

THIRD PRIZES

Florian Căsar, Michael Plainer
AUSTRIA | MATHEMATICS
Sigma – Learning how computers learn

Chavdar Tsvetanov Lalov
BULGARIA | MATHEMATICS
The structure of self-avoiding walks and the connective constant

Arne Jakob Geipel, Matthias Paul Grützner, Julian Egbert
GERMANY | PHYSICS
Liquid stream hits rough surfaces – showing



DUBLIN 2018

FIRST PRIZES

Adrian Fleck, Anna Amelie Fleck
GERMANY | MATERIALS
FleckProtec – Body Protec on Made From Starch

Nicolas Fedrigo
CANADA | MEDICINE
Improving Spinal Fusions: Redesigning the Pedicle Probe to Prevent Vertebral Breaches

Brendon Matusch
CANADA | ENGINEERING
Development of a Level 2 Autonomous Vehicle Using Convolutional Neural Networks and Reinforcement Learning

SECOND PRIZES

Alexandru Liviu Bratosin, Petru Molla, Mihnea Vlad Bojian
FRANCE | BIOLOGY
DNAdrive

Karl Hendrik Tamkivi
ESTONIA | BIOLOGY
Positioning of bat maternity roosts in relation to surrounding landscape complex in Western Saaremaa

Francisco Miguel Araújo
PORTUGAL | MATHEMATICS
Commutativity theorems for groups and semigroups

THIRD PRIZES

Marina Gudzhabidze, Dea Ilarionova, Shorena Gudzhabidze
GEORGIA | PHYSICS
Hand-Held Detector With Retroreflective Mosaic Screens To Visualize Optical Inhomogeneities

Kyuhee Jo, Chaeyoung Lee
SOUTH KOREA | COMPUTING
Building a robust classification model for speech-based Parkinson's Disease diagnosis

Sijia Zhang
CHINA | SOCIAL SCIENCES
Investigation into the Verbal Conflict Problem in Middle School Students' Families

SOFIA 2019

FIRST PRIZES

Leo Li Takemaru, Poojan Pandya
USA | BIOLOGY
Investigating the Role of the Novel ESCRT-III Recruiter CDDC11 in HIV Budding: Identifying a Potential Target for Antiviral Therapy

Adam Kelly
IRELAND | COMPUTING
Optimised Simulation of General Quantum Circuits

Alex Korocencev, Felix Sewing
GERMANY | ENGINEERING
Hoverboard – a Magnetically Levitated Vehicle

Magnus Quaade Oddershed
DENMARK | ENGINEERING
The wingtip's influence on the efficiency of airplane wings

SECOND PRIZES

Saba Gogichaishvili, Nia Gogokhia
GEORGIA | CHEMISTRY
Novel Biodegradable Polymer for Pharmaceutical Applications

Olli Järviniemi
FINLAND | MATHEMATICS
On the Common Prime Divisors of Polynomials

Jaehyun Lee
SOUTH KOREA | PHYSICS
Introduction of a Novel Diodicity Evaluation Criteria and 1-D Approximate Model for Multistaged NMP (No-Moving-Parts) Check Valves and Methods for Valve Stage Optimization

Claudia Lidia Pubill Quintillà
SPAIN | SOCIAL SCIENCES
With Death at His Heels. Chronicle of an Escape and Two Wars

THIRD PRIZES

Antoni Ignacy Lis – Poland
POLAND | CHEMISTRY
Nanoparticles in antitumor therapy

Noah Scheiring, Andreas Ladner, Tobias Schauer
SWITZERLAND | ENGINEERING
Diffrec PRO

Océane Zofia Adrienne Patiny
CHINA | ENGINEERING
Remote Controlled Cylinder

Aliaksandr Piachonkin
BELARUS | MATHEMATICS
On the number of points on an algebraic curve in a ring of residues

SALAMÂNCA

2020/2021

FIRST PRIZES 2020

Feridun Balaban
TURKEY | PHYSICS
Investigation of Spectral Response and Efficiency of Boron and Nitrogen doped Diamond-like carbon as a Top Junction on Multi-junction Solar Cells

Cormac Thomas Harris, Alan Thomas O’Sullivan
IRELAND | SOCIAL SCIENCES
A statistical investigation into the prevalence of gender stereotyping in 5-7 year olds and the development of an initiative to combat gender bias.

FIRST PRIZES 2021

Viktor Stilianov Kolev
BULGARIA | COMPUTING
Neural Abstract Reasoner

Marik Müller
GERMANY | BIOLOGY
Enzymatic inactivation of the veterinary antibiotic Florfenicol

Carla Caro Villanova
SPAIN | COMPUTING
Formulation and implementation of a support vector machine on D-Wave’s quantum annealer

Illia Nalyvaiko
UKRAINE | MATHEMATICS
Properties of possible counterexamples to the Seymour’s Second Neighborhood Conjecture

SECOND PRIZES 2020

Ophélie Léna Rivière
SWITZERLAND | PHYSICS
Sinking Bubbles - On the Behavior of Air Bubbles in a Vertically Oscillating Column of Liquid

Yordan Tsvetkov Tsvetkov
BULGARIA | ENGINEERING
Training Quadrupeds to Walk via Evolution Strategies and Sinusoidal Activation Functions

SECOND PRIZES 2021

Mehmet Sertaç Çeküç
TURKEY | CHEMISTRY
Artificial Antibodies: Development of Micro-Fluidic Sensors for

The Detection of Environmental Contaminants and Apply to Mathematical Models

Hardit Singh
CANADA | MEDICINE
Specular: A Comprehensive Teleophthalmology Platform for People Centered Eyecare

Sophie Lynn Wiesmann
SWITZERLAND | BIOLOGY
Temperature-dependent toxin production of the cyanobacterium Microcystis aeruginosa

Giovanni Benetti
ITALY | PHYSICS
Distorted Interstellar Bubbles: a new mathematical and computational model

THIRD PRIZES 2020

Dmitriy Gorovoy
BELARUS | MATHEMATICS
On graphs with unique geodesics or antipodes

Jarosław Jakub Brodecki
POLAND | ENVIRONMENT
An assessment of the pollution of urban rivers by microplastics and their penetration of food webs based on the example of the river system in the Łódź agglomeration (central Poland)

THIRD PRIZES 2021

Gregory Guy Tarr
IRELAND | COMPUTING
Towards detecting state-of-the-art deepfakes

Matus Mlynar
SLOVAKIA | MEDICINE
The dynamic effect of oxytocin treatment on autistic-like behaviors in a genetic model of autism

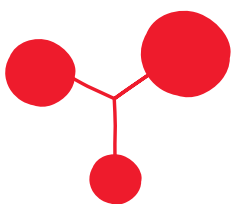
Emirhan Kurtuluş
TURKEY | COMPUTING
DEEP LEARNING BASED STEREOTACTIC CRANIAL SURGERY PLANNING

Michal Bravanský
CZECHIA | COMPUTING
Be Informed: a news aggregator



THIS YEAR WE’VE INCLUDED A QR CODE TO SAVE TREES

Because of this we’ve saved over 10.000 pages being printed.



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