The ECT* Mission

1. To be a center of frontline research in theoretical nuclear physics

2. To promote active contacts between **theory** and **experiments**, and to **related areas** of research

ECT* Scientific Events 2020

19 accepted workshops+DTP and TALENT

10-14 FEBRUARY
Determination of the Effective Electron (Anti)-Neutrino Mass
Organisers: L. Gastaldo, (University of Heidelberg), K. Valerius (KIT, Karlsruhe)

24-28 FEBRUARY
Heavy-Flavor Transport in QCD Matter
Organisers: R. Rapp (Texas A&M University), R. Averbeck (GSI, Darmstadt), X. Dong (LBL, Berkeley), P. Gossiaux (Subatech, Nantes), X.-N. Wang (CCNU, Wuhan)

23-27 MARCH
Machine Learning for High Energy Physics, on and off the Lattice
Organisers: A. Athenodorou (Pisa University), D. Giannakis (National and Kapodistrian University of Athens), B. Lucini (Swansea University), E. Rinaldi (Artificiae Inc., Tokyo), K. Cranmer (New York University), C. Alexandrou (University of Cyprus)

20-24 APRIL
New Physics Searches in Heavy Ion Collisions
Organisers: M. Dutra (UCLouvain), D. D'Enterria (CERN), A. Giammanco (UCLouvain), J. Harz (UCLouvain)

18-22 MAY
Nuclear Physics Meets Condensed Matter: Symmetry, Topology, and Gauge
Organisers: A. Gezerlis (University of Guelph), A. Roggero (University of Washington), C. Sa de Melo (Georgia Institute of Technology)

25-29 MAY
Neutron Stars as Multi-Messenger Laboratories for Dense Matter
Organisers: I. Tews (LANL, Los Alamos), B. Giacomazzo (University of Milano), S. Guillot (CNRS, Toulouse), J. Margueron (IPN, Lyon), S. Nissanke (University of Amsterdam)

08-12 JUNE
Relativistic Fermions in Flatland: Theory and Application
Organisers: S. Hands (Swansea University), H. Gies (Friedrich-Schiller-Universität Jena), J. Gracey (University of Liverpool), I. Herbut (Simon Fraser University)

15-19 JUNE
Tomography of Light Nuclei at an EIC
Organisers: A. Freese (ANL), W. Cosyn (Ghent University & Florida International University), I. Cloët (ANL), P. Shanahan (MIT)

22-26 JUNE
Key Reactions in Nuclear Astrophysics
Organisers: A. Tumino (Università degli Studi di Enna "Kore" & INFN-LNS, Catania), J. José (Technical University of Catalonia), C. Brandau (Texas A&M University-Commerce), R. Diehl (MPE Munich), L. Trache (IFIN-HH Bucarest-Magurele, Romania)

22 JUNE – 10 JULY
TALENT School:
Machine Learning applied to Nuclear Physics, Experiment and Theory
Organisers: M. Hjorth-Jensen (Michigan State University and University of Oslo), D. Bazin (Michigan State University), M. Kuchera (Davidson College), S. Liddick (Michigan State University), R. Ramanujan (Davidson College)

30 JUNE – 4 JULY
Diffractive and Electromagnetic Processes at High Energies
Organisers: R. Schicker (University of Heidelberg), G. Contreras Nuno (Czech Technical University), E. Kryshen (Kurchatov Institute), A. Szczurek (Institute of Nuclear Physics Krakow)

06-10 JULY
Saturation and Diffraction at the LHC and the EIC
Organisers: C. Royon (Kansas University), A. Sabio Vera (Universidad Autónoma de Madrid), S. Schlichting (University of Bielefeld), A. Dumitru (Stony Brook University), G. Soyez (IPhT, Saclay), M. Hentschinski (Universidad de Las Americas Puebla)

06-31 JULY
Doctoral Training Programme:
High-Energy and Nuclear Physics within Quantum Technologies
Organisers: P. Hernandez (University of Valencia), S. Montangero (University of Padova), Y. Omar (University of Lisbon), E. Rico (UPV/EHU, Bilbao)

13-17 JULY
Probing Nuclear Physics with Neutron Star Mergers
Organisers: C. Fryer (LANL, Los Alamos & George Washington University), J. Lippuner (LANL, Los Alamos), M. Mumpower (LANL, Los Alamos), A. Steiner (University of Tennessee), B. Cote (Konkoly Observatory), R. Surman (University of Notre Dame), S. Rosswog (Stockholm University)

20-24 JULY
STRANU: Hot Topics in STRANgeness NUclear and Atomic Physics
Organisers: K. Piscicchia (Centro Fermi, Roma), C. Curceanu (LNF-INFN, Frascati), D. Gazda (Czech Academy of Sciences), E. Hiyama (Kyushu University - RIKEN Nishina Centre, Wako), P. Moskal (Jagiellonian University, Krakow), F. Sakuma (RIKEN Nishina Center, Wako)

07-11 SEPTEMBER
Theoretical and Experimental Challenges in Flavour Hadrons, Heavy Quarkonia and Multiquark Physics
Organisers: M. Baranov (JINR, Dubna), B. El-Bennich (Universidade Cruzeiro do Sul), E. Santopinto (INFN, Genova), E. Epelbaum (Ruhr-Universität Bochum), A. Bazavov (Universidad Michoacana de San Nicolás de Hidalgo)

28 SEPTEMBER – 02 OCTOBER
Exploring High-MuB Matter With Rare Probes
Organisers: E. Scomparin (INFN, Torino), T. Galatyuk (GSI & TU Darmstadt), M.P. Lombardo (INFN, Firenze), R. Rapp (Texas A&M University), G. Usai (University of Cagliari & INFN)

05-09 OCTOBER
Spin and Hydrodynamics in Relativistic Nuclear Collisions
Organisers: F. Becattini (University of Florence & INFN), W. Florkowski (Jagellonian University, Krakow), X.-G. Huang (Fudan University), D. Rischke (Goethe-Universität Frankfurt)

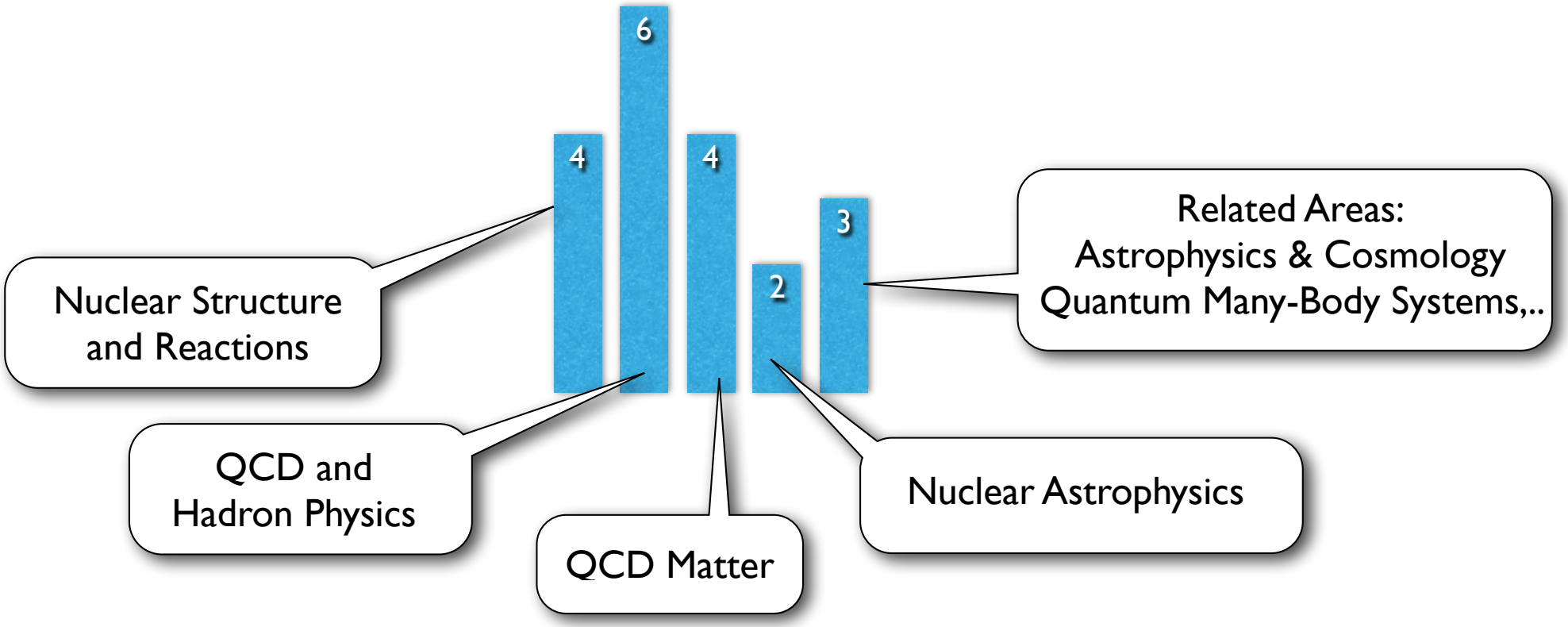
12-16 OCTOBER
LFC20: Strong Interactions from QCD to New Strong Dynamics at LHC and Future Colliders
Organisers: G. Cossu (LNF-INFN, Frascati), S. Di Carlo (INFN, Firenze), S. Monteiro (University of Southampton), G. Panchieri (LNF-INFN, Frascati), R. Tenchini (INFN, Pisa), M. Vos (IFIC, Valencia)

26-30 OCTOBER
Nuclear and Atomic Transitions as Laboratories for High Precision Tests of Quantum Gravity Inspired Models
Organisers: A. Mariano (Fudan University), S. Alexander (Brown University, Providence), E. Barberio (Melbourne University), C. Curceanu (LNF-INFN, Frascati), K. Piscicchia (Centro Fermi, Roma), N. Yunes (University of Illinois at Urbana-Champaign)

02-06 NOVEMBER
Advances in Many-Body Theories: From First Principle Methods to Quantum Computing and Machine Learning
Organisers: M. Hjorth-Jensen (Michigan State University & University of Oslo), D.J. Dean (ORNL, Oak Ridge), T. Papenbrock (University of Tennessee & ORNL, Oak Ridge), M. Savage (INT & University of Washington), G. Hagen (ORNL, Oak Ridge), S. Gandolfi (LANL, Los Alamos), J. Holt (TRIUMF, Vancouver)

ECT* Scientific Events 2020

distribution of workshop topics



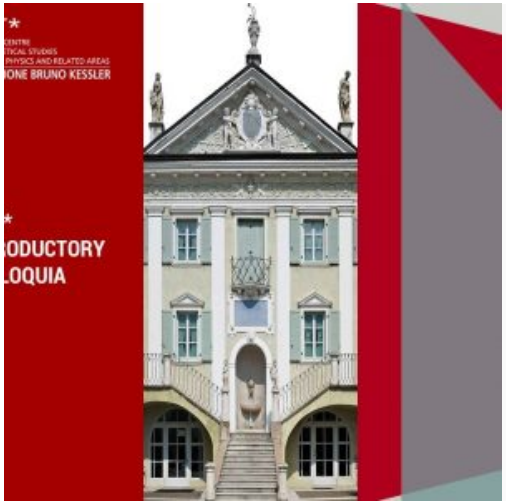
ECT* workshop organisers 2020

ECT* Scientific Events 2020

19 accepted workshops

because of Covid-19 all workshops after Feb. 14 where shifted to 2021 or run remotely (2 workshops)

for each deferred workshop an **introductory colloquium** was initiated to promote the **science case** to a wider audience. The recordings are available on the **ECT* YouTube channel**



2° COLLOQUIUM | HEAVY-FLAVOR TRANSPORT IN THE QUARK-GLUON PLASMA

Colloquium by Ralf Rapp

Video

The ECT* Mission

1. To be a center of **frontline research** in **theoretical nuclear physics**

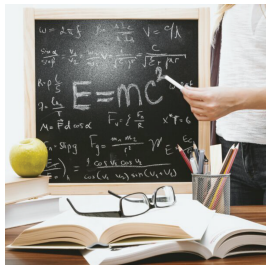
2. To promote active contacts between **theory** and **experiments**, and to **related areas** of research

3. To further the **training** of **young researchers**

Training Programs 2020

DOCTORAL TRAINING PROGRAM

The ECT* Doctoral Training Program is intended for advanced doctoral students to substantially improve their background and research experience, as well as their professional and communicative skills, at an internationally competitive level. MORE INFO



06 July 2020 — 31 July 2020

HIGH-ENERGY AND NUCLEAR PHYSICS WITHIN QUANTUM TECHNOLOGIES

POSTPONED TO 2021 | The purpose of this school is to bring together experts and leaders in quantum information and high-energy physics to train a new generation of researchers in the state-of-the-art methods, applications, and open problems in both fields.

More info

deferred to 2021

Training Programs 2020

TALENT @ ECT*

The TALENT initiative, **Training in Advanced Low Energy Nuclear Theory**, aims at providing advanced and comprehensive training to graduate students and young researchers in all aspects of low-energy nuclear theory. TALENT offers intensive three-week courses on a rotating set of topics. General information on TALENT and past courses can be found at http://www.nucleartalent.org.

22 June 2020 — 03 July 2020

VIRTUAL

TALENT SCHOOL "SPECIAL EDITION 2020"

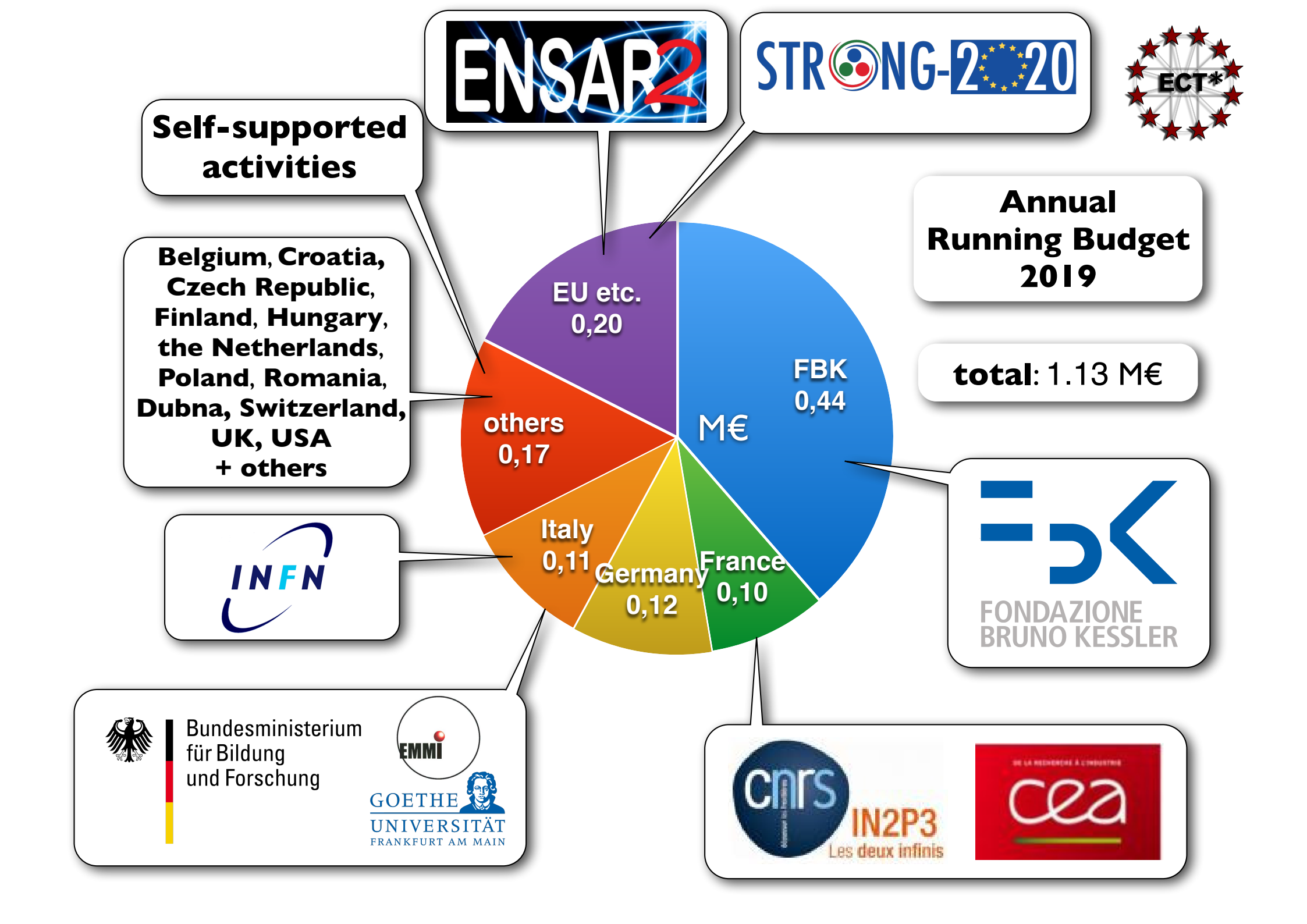
A 2020 "special edition" of the TALENT School on Machine learning will be held from 22 June 2020 to 03 July 2020 as a “remote” course.

More info

deferred to 2021

but **one-line course** with over 120 participants

Budget


ENSAR2
STRONG-2020
ECT*
Self-supported activities
Annual Running Budget 2019
Belgium, Croatia, Czech Republic, Finland, Hungary, the Netherlands, Poland, Romania, Dubna, Switzerland, UK, USA + others
total: 1.13 M€
EU etc. 0,20
FBK 0,44
M€
others 0,17
Italy 0,11
Germany 0,12
France 0,10
INFN
FONDAZIONE BRUNO KESSLER
Bundesministerium für Bildung und Forschung
EMMI
GOETHE UNIVERSITÄT FRANKFURT AM MAIN
cnrs
IN2P3
Les deux infinis
cea

Budget evolution 2016- 2019

(Expenses/Revenues are at final Balance)

EXPENSES	2016	2017	2018	2019
Workshops & Schools	242.066 €	275.725 €	293.163 €	312.326 €
Personnel	780.422 €	695.968 €	690.054 €	634.543 €
Operating Costs	115.652 €	177.312 €	124.362 €	186.091 €
Total Expenses	**1.138.141 €**	**1.149.004 €**	**1.107.579 €**	**1.132.960 €**

REVENUES	2016	2017	2018	2019
FBK	632.283 €	651.458 €	579.683 €	438.301 €
External Funding	453.898 €	468.866 €	512.370 €	489.217 €
EU-Projects	42.290 €	22.347 €	14.994 €	204.575 €
Other	9.670 €	6.333 €	532 €	867 €
Total Revenues	**1.138.141 €**	**1.149.004 €**	**1.107.579 €**	**1.132.960 €**

Budget Status 2020

Contributions from external funding agencies

Contributions of European Funding Agencies and Institutions 2020			
COUNTRY	**PAYMENT REQUEST SENT ON**	**AMOUNT**	**RECEIVED ON**
Belgium FWO (Flemish)	05/05/2020	**10.000**	12/05/2020
Croatia	24/01/2020	**9.800**	31/01/2020
Czech Republic	05/05/2020	**10.000**	12/05/2020
Finland	05/05/2020	**8.000**	05/06/2020
France CEA (Saclay)	05/05/2020	35.000	NOT YET
France CNRS	09/06/2020	**45.000**	10/07/2020
Germany	in 2018	**110.000**	received in 2018
Hungary	11/05/2020	2.000	NOT YET
Italy (INFN)	05/05/2020	**110.000**	15/05/2020
Netherlands	05/05/2020	**8.000**	15/07/2020
Poland	11/05/2020	**10.000**	25/05/2020
Romania	05/05/2020	**6.000**	19/06/2020
Dubna (JINR)	05/05/2020	20.000	NOT YET
Switzerland	05/05/2020	**9.981**	15/05/2020
UK	05/05/2020	**26.000**	18/06/2020
Total expected:		**€ 420**	
Received so far:		**€ 362.781**	

Budget Status 2020

MOU & POA 2019-2023

COUNTRY	MOU SIGNED	POA SIGNED	AMOUNT	Commitment until:
Belgium (FWO)	YES	YES	10.000	2019 (2020-2023)
Croatia	YES	YES	9.800	2019 (2020-2023)
Czech Republic	YES	YES	10.000	2019-2021 (2022-2023)
Finland	YES	YES	8.000	2019-2021 (2022-2023)
France CNRS	YES	YES	65.000	2019 (2020-2023)
France CEA	YES	YES	35.000	2019-2020 (2021-2023)
Germany	YES	YES	100.000	2019-2022
Hungary	Not yet	Not yet		
Italy	YES	YES	100.000	2019 (2020-2023)
Netherlands	YES	YES	8.000	2019-2020 (2021-2023)
Poland	Not yet	Not yet		
Romania	YES	YES	6.000	2019-2023
Dubna (JINR)	YES	YES	20.000	2019-2021 (2022-2023)
Switzerland	Approved but not yet signed	Approved but not yet signed	10.000	2019-2021
UK	YES	YES	26.000	2019-2021 (2022-2023)