



High Resolution and High Rate Detectors
in Nuclear and Particle Physics



UNIVERSITÄT
HEIDELBERG
ZUKUNFT
SEIT 1386

VISTAS ON DETECTOR PHYSICS

WORKSHOP ON DETECTOR TECHNOLOGY AND DEVELOPMENT

HEIDELBERG UNIVERSITY, 12-14 SEPTEMBER 2022



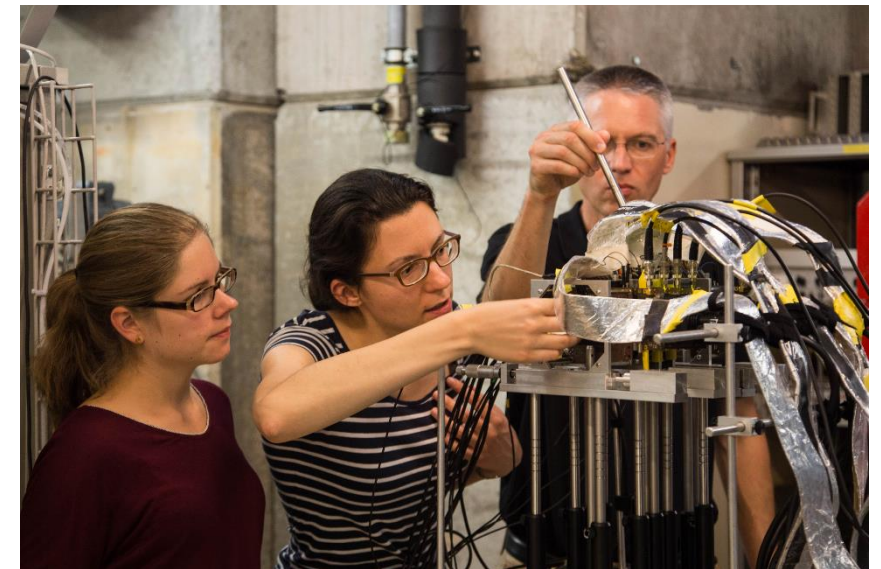
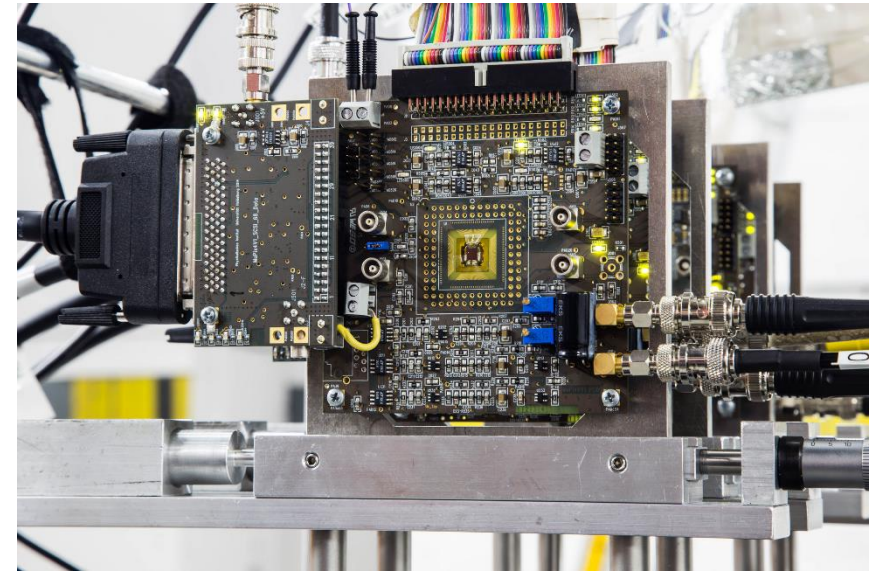
High Resolution and High Rate Detectors
in Nuclear and Particle Physics

Research and education in **pure detector science**

instrumentation for experiments in nuclear, particle and
high energy physics

training detector scientists by the **interaction with experts**
in different detector technologies

HighRR doctoral researchers work at the cutting edge technologies
to make **essential contributions** in experiments to test fundamental
questions in physics



VISTAS ON DETECTOR PHYSICS

WORKSHOP ON DETECTOR TECHNOLOGY AND DEVELOPMENT

Focus on hot topics in detector development and new instrumentation

Excellent female scientists expert in hardware development as invited speakers

Forster discussions between different generation of detector scientists on the beauty and difficulties of a field which is always developing very fast



VISTAS ON DETECTOR PHYSICS

WORKSHOP ON DETECTOR TECHNOLOGY AND DEVELOPMENT
UNIVERSITÄT HEIDELBERG, 11-12 DECEMBER 2017



INVITED SPEAKERS

B. BORNSCHEIN (Tritium Labs KIT)
L. FABBIETTI (ALICE)
E. FERRER-RIBAS (CAST)
M. GALLOWAY (XENON)
I. GREGOR (ATLAS)
X. HAN (LHCb)
S. MERTENS (TRISTAN)
A. PAPA (PSI)
K. SCHAEFFNER (CRESST)
K. SCHOLBERG (COHERENT)
M. SISTI (CUORE)
K. VALERIUS (KATRIN)
C. WUNDERER (PERCIVAL)

ORGANISING COMMITTEE

L. GAMER | L. GASTALDO
S. HANSMANN-MENZEMER
A. PIUCCI | A. SCHOENING
H.-C. SCHULTZ-COULON
J. STACHEL | Z. YUAN

WORKSHOP ESPECIALLY ADDRESSED
TO MASTER AND PHD STUDENTS

REGISTRATION

<https://www.physik.uni-heidelberg.de/highrr/vistas>

VISTAS 2017

Direct DM searches

Experiment to test LNV and LFV

Experiments on neutrino properties

Sterile neutrino searches

Detectors for LHC experiments

Axion and ALP searches





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VISTAS ON DETECTOR PHYSICS

WORKSHOP ON DETECTOR TECHNOLOGY AND DEVELOPMENT
UNIVERSITÄT HEIDELBERG, 30 SEPTEMBER – 1 OCTOBER 2019



Credit: NASA, ESA and the Hubble SM4 ERO Team

INVITED SPEAKERS

- C. BRAGGIO (QUAX)
- L. CANONICA (CRESST)
- C. CLAESSENS (PROJECT 8)
- G. FIORILLO (DARKSIDE)
- J. HAKENMÜLLER (CONUS)
- F. JANUSCHEK (ALPS)
- F. MANTEGAZZINI (ECHO)
- A. PARSONS (NASA)
- Y. PACHMAYER (ALICE)
- T. POLLMANN (DEAP 3600)
- P. RIEDLER (ALICE)
- C. RODENBECK (KATRIN)
- P. SANCHEZ LUCAS (XENON/DARWIN)
- G. WANNER (LISA)
- C. WUNDERER (DESY)
- A. ZSIGMOND (GERDA)

ORGANISING COMMITTEE

- L. GASTALDO
- H. KLINGENMEYER
- T. MKRTCHYAN
- D. RASSLOFF
- A. SCHÖNING
- H.-C. SCHULTZ-COULON
- J. STACHEL

WORKSHOP ESPECIALLY ADRESSED TO
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REGISTRATION

<https://indico.cern.ch/e/vistas2019>

VISTAS 2019

Experiments for BSM searches

Axion and ALP searches

Experiments on neutrino mass determination

Detectors for LHC experiments

Detectors for astronomy and astrophysics

Direct DM searches



VISTAS 2022

VISTAS ON DETECTOR PHYSICS

WORKSHOP ON DETECTOR TECHNOLOGY AND DEVELOPMENT
HEIDELBERG UNIVERSITY, 12-14 SEPTEMBER 2022



INVITED SPEAKERS

E. Baracchini (Directional DM searches)
L. Baudis (LXe DM searches)
S. Beolé (ITS - ALICE)
D. vom Bruch (LHCb)
S. Franchino (ATLAS)
L. Gamer (Molecule mass spectroscopy)
B. von Krosigk (Light DM searches)
L. Qin (Beam monitor)
S. Scheithauer (JWST)
A. Sfyrla (FASER)
A. Vauth (LGADs)

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A. Schöning
H.-C. Schultz-Coulon
J. Stachel

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REGISTRATION

<https://indico.cern.ch/e/Vistas2022>

Direct DM searches

Detectors for LHC experiments

Detectors for astronomy and astrophysics

Beam monitoring for ion therapy

Experiments for BSM searches

Open discussion on Gender Equality

Photo

VISTAS 2022

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Direct DM searches

Detectors for LHC experiments

Detectors for astronomy and astrophysics

Beam monitoring for ion therapy

Experiments for BSM searches

Open discussion on Gender Equality

Welcome party tonight





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VISTAS 2022

VISTAS ON DETECTOR PHYSICS WORKSHOP ON DETECTOR TECHNOLOGY AND DEVELOPMENT HEIDELBERG UNIVERSITY, 12-14 SEPTEMBER 2022



<https://home.cern/resources/image/experiments/alice-images-gallery>

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Funded by **DFG**

Direct DM searches

Detectors for LHC experiments

Detectors for astronomy and astrophysics

Beam monitoring for ion therapy

Experiments for BSM searches

Open discussion on Gender Equality

Enjoy the workshop!