

JOHANNES HORN

CURRICULUM VITAE

CONTACTS

ADDRESS	OFFICE 215, MATHEMATICAL INSTITUTE, JOHANN WOLFGANG GOETHE-UNIVERSITÄT, ROBERT-MAYER-STR. 6-8, 60325 FRANKFURT AM MAIN, GERMANY.
TELEPHONE	+49-69-798-22328
E-MAIL	HORN [AT] MATH.UNI-FRANKFURT.DE

ACADEMIC EDUCATION

OCT. 2020-MAY 2021	POSTDOC, UNIVERSITY OF FRANKFURT, DFG-GRANT MO 1884/2-1 "KLASSIFIKATION VON TEICHMÜLLERKURVEN".
OCT. 2020	COMPLETION OF DOCTORATE, THESIS: "SINGULAR FIBERS OF HITCHIN SYSTEMS", KARL-RUPRECHTS UNIVERSITÄT HEIDELBERG, GRADE 1,0. SUPERVISION: DANIELE ALESSANDRINI, ANNA WIENHARD.
OCT. 2019 - OCT. 2020	GRADUATE STUDENT, HEIDELBERG INSTITUTE FOR THEORETICAL STUDIES, RESEARCH GROUP "GROUPS AND GEOMETRY".
AUG. 2019 - OCT. 2019	GRADUATE INTERNSHIP IN RESEARCH PROGRAM "HOLOMORPHIC DIFFERENTIALS IN MATHEMATICS AND PHYSICS", MSRI, BERKELEY.
FEB. 2019 - MAR. 2019	GRADUATE INTERNSHIP WITH DR. BRIAN COLLIER, UNIVERSITY OF MARYLAND, COLLEGE PARK.
OCT. 2016 - OCT. 2019	GRADUATE STUDENT, RTG 2229 "ASYMPTOTIC INVARIANTS AND LIMITS OF GROUPS AND SPACES", UNIVERSITY OF HEIDELBERG.
APR. 2015 - OCT. 2016	MASTER OF SCIENCE MATHEMATICS, UNIVERSITY OF STUTTGART. THESIS "LIMITING CONFIGURATIONS FROM A HERMITIAN POINT OF VIEW", GRADE 1,3.
OCT. 2012 - MAY 2015	BACHELOR OF SCIENCE MATHEMATICS, UNIVERSITY OF STUTTGART. THESIS "THE ORTHOGONAL GROUP IN CHARACTERISTIC 2", GRADE 1,0.
OCT. 2011- SEPT. 2012	STUDIES FOR SECONDARY SCHOOL TEACHING IN MATHEMATICS, POLITICS AND ECONOMICS, UNIVERSITY OF STUTTGART.
JUNE 2009	ABITUR, ELLENTAL-GYMNASIUM BIETIGHEIM-BISSINGEN.

PUBLICATIONS AND PREPRINTS

2. | “ $SL(2)$ -TYPE SINGULAR FIBRES OF THE SYMPLECTIC AND ODD ORTHOGONAL HITCHIN SYSTEM”,
| [ARXIV:2011.02192](#).
1. | “SEMI-ABELIAN SPECTRAL DATA FOR SINGULAR FIBERS OF THE $SL(2, \mathbb{C})$ -HITCHIN SYSTEM”, INT.
| MATH. RES. NOT. 2020.5, DOI: 0.1093/IMRN/RNAA273, [EPRINT](#).

INVITED TALKS

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| FEB. 2021 | “SPECTRAL DATA FOR SINGULAR HITCHIN FIBERS AND ASYMPTOTIC SOLUTIONS
 TO THE HITCHIN EQUATION”, COMPLEX ANALYSIS SEMINAR, FREIE UNIVERSITÄT
 BERLIN. |
| JAN. 2021 | “SINGULAR FIBERS OF THE SYMPLECTIC AND ODD ORTHOGONAL HITCHIN SYSTEM”,
 GEOMETRY AND TOPOLOGY SEMINAR, UNIVERSIDADE DO PORTO. |
| MAR. 2020 | “SINGULAR FIBERS OF HITCHIN INTEGRABLE SYSTEMS”, GEOMETRY-TOPOLOGY SEMI-
 NAR, UNIVERSITY OF MARYLAND, COLLEGE PARK. |
| FEB. 2020 | “SINGULAR FIBERS OF HITCHIN INTEGRABLE SYSTEMS”, SEMINAR SYMPLECTIC GE-
 OMETRY, GAUGE THEORY AND CATEGORIFICATION, COLUMBIA UNIVERSITY, NEW
 YORK. |
| NOV. 2018 | “LIMITING CONFIGURATIONS ON THE SINGULAR LOCUS OF THE HITCHIN MAP”,
 OBERSEMINAR GEOMETRIE, KARL-ALBRECHTS-UNIVERSITÄT ZU KIEL |

IN PREPARATION

1. | (WITH NGUYEN-THI DANG AND ANDREW SANDERS) REGULAR EMBEDDINGS AND ANOSOV REP-
| REPRESENTATIONS.
2. | (WITH XUESEN NA) THE GEOMETRY OF SINGULAR HITCHIN FIBRES VIA HECKE MODIFICATIONS
| AND ABELIANISATION.

CONFERENCES AND WORKSHOPS

AUG. 2019	INTRODUCTORY WORKSHOP: "HOLOMORPHIC DIFFERENTIALS IN MATHEMATICS AND PHYSICS", MSRI, BERKELEY.
MAY 2019	WORKSHOP "GEOMETRY AND PHYSICS OF HIGGS BUNDLES", MFO, OBERWOLFACH.
FEB. 2019	WORKSHOP "HOLOMORPHIC DIFFERENTIALS IN MATHEMATICS AND PHYSICS", SIMONS CENTER, STONY BROOK.
NOV. 2018	SCHOOL AND WORKSHOP ON NEW TRENDS IN HIGGS BUNDLE THEORY, ICMAT MADRID.
AUG. 2018	WORKSHOP "GAUGE THEORIES AT INFINITY", SASKATCHEWAN.
FEB. 2018	GEAR WORKSHOP "RELATIVE CHARACTER VARIETIES AND PARABOLIC HIGGS BUNDLES", INDIO.
NOV. 2017	RTG WORKSHOP "THE GEOMETRY AND PHYSICS OF HIGGS BUNDLES II" AND MEETING "CURRENT TRENDS ON SPECTRAL DATA FOR HIGGS BUNDLES III", UNIVERSITY OF ILLINOIS AT CHICAGO.
AUG. 2017	GEAR JUNIOR RETREAT AND GEAR RETREAT, STANFORD UNIVERSITY.
FEB. 2017	CONFERENCE "ASYMPTOTIC GEOMETRY OF GROUPS AND SPACES", HEIDELBERG.

TEACHING EXPERIENCE

WT 20/21	SEMINAR ASSISTANCE "GEOMETRIC GROUP THEORY", UNIVERSITY OF FRANKFURT.
WT 19/20	TEACHING ASSISTANCE "GEOMETRIC GROUP THEORY", UNIVERSITY OF HEIDELBERG.
WT 18/19	TUTOR "DIFFERENTIAL GEOMETRY 2: SYMMETRIC SPACES", UNIVERSITY OF HEIDELBERG.
WT 17/18	TUTOR "DIFFERENTIAL GEOMETRY 2: SYMMETRIC SPACES", UNIVERSITY OF HEIDELBERG.
ST 17	TEACHING ASSISTANCE "THERMODYNAMIC FORMALISM", UNIVERSITY OF HEIDELBERG.
ST 16	TUTOR "GEOMETRY", UNIVERSITY OF STUTTGART.
WT 15/16	TUTOR "ANALYSIS 1", UNIVERSITY OF STUTTGART.
ST 14	TUTOR "LINEAR ALGEBRA AND ANALYTIC GEOMETRY 2", UNIVERSITY OF STUTTGART.
WT 13/14	TUTOR "LINEAR ALGEBRA AND ANALYTIC GEOMETRY 1", UNIVERSITY OF STUTTGART.

(ST: SUMMER TERM, WT: WINTER TERM)