UNIVERSITÀ DEGLI STUDI DI MILANO

TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO   ID CODE _____

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at **Dipartimento di _____**

Scientist- in – charge: **_____**

[Marwan Benyoussef]

CURRICULUM VITAE

PERSONAL INFORMATION

Surname	Benyoussef
Name	Marwan

PRESENT OCCUPATION

Appointment	Structure
PhD student and teaching assistant in mathematics	Freie Universitaet Berlin (FU Berlin)

EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
Degree			
Specialization			
PhD	Algebraic and arithmetic geometry	FU Berlin	(July) 2024
Master	Pure mathematics	Sorbonne University	2020
Degree of medical specialization			
Degree of European specialization			
Other			

REGISTRATION IN PROFESSIONAL ASSOCIATIONS

1

Università degli Studi di Milano – Direzione Trattamenti Economici e Lavoro Autonomo
Ufficio Contratti di formazione e Ricerca
Via Sant'Antonio 12 - 20122 Milano, Italia
assegni.ricerca@unimi.it DTELA_M_CVAssegni_revENG. 00 del 02/09/2021

Date of registration	Association	City

FOREIGN LANGUAGES

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UNIVERSITÀ DEGLI STUDI DI MILANO

Languages	level of knowledge
French - Arabic	Bilingual
English	Fluent
Spanish	Beginner (level A2)
Italian	Beginner (level A2)

AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2005	Award of Merit from the French Government to continue my studies at one of France's elite engineering schools, "Ecole Nationale Superieure des Mines de Saint Etienne". This scholarship is awarded based on ranking in a highly selective entrance examination.

TRAINING OR RESEARCH ACTIVITY

description of activity

During the author's thesis, the character formula of Frobenius have been generalized to "mass-type formulas" expressing the point count over finite fields of the (twisted and non-twisted) G-representation variety of the orbifold fundamental group in terms of the character table of $G(F_q)$ for any reductive linear algebraic group G. This generalizes the point-counting formula of Hausel and Rodriguez-Villegas for a surface group. Motivated by Mirror Symmetry considerations, the mass formulas have been applied to compute the E-polynomials for

various representation and character varieties of interest, for $G = SL_2$ and its Langlands' dual $G = PGL_2 = SL_2^L$. We started with the twisted SL_2-representation variety of a one-relator Kähler group. In the coprime case, we obtained the E-polynomial of the corresponding character variety. We generalized later the above computations to the orbifold fundamental group case in two directions. In the first direction, we obtained a closed formula for the E-polynomial of the representation variety of an orbifold group with an arbitrary number of ramified points. In the second direction, we generalized our computations to the case of certain Seifert bundles and obtained the E-polynomial of the corresponding twisted SL_2 representation and character varieties.

PROJECT ACTIVITY

Year	Project

PATENTS

Patent

CONGRESSES AND SEMINARS

Date	Title	Place
Wnter semester 2022	Derived categories and the Mukai transform	FU Berlin, Germany
Winter semester 2022	Infinite dimensional GIT	FU Berlin, Germany
Summer semester 2023	Groebner bases	FU Berlin, Germany
Winter semester 2023	On the Hitchin morphism for higher dimensional varieties	FU Berlin, Germany
Summer semester 2022	Bridgeland Stability Conditions	FU Berlin, Germany
June,6-19, 2022.	Non-abelian Hodge theory	Saint-Jacut de la mer, France
Spet. 14-1, 2020	Irregular Riemann-Hilbert correspondence	Aussois, France

PUBLICATIONS

Books
[title, place, publishing house, year …]
[title, place, publishing house, year …]
[title, place, publishing house, year …]

Articles in reviews
[title of the article, review, place, publishing house, year …]
[title of the article, review, place, publishing house, year …]
[title of the article, review, place, publishing house, year …]

Congress proceedings
[title, structure, place, year]
[title, structure, place, year]
[title, structure, place, year]

OTHER INFORMATION

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Please note that CV WILL BE PUBLISHED on the University website and It is recommended that personal and sensitive data should not be included. This template is realized to satisfy the need of publication without personal and sensitive data.

Please DO NOT SIGN this form.

Place and date: ___05/01/2024_____, _____Berlin_____