ДОКАЗ ДА ЈЕ РЕЗУЛТАТ ОБЈАВЉЕН У Nanoscale 9, 19337 (2017.) ПРЕДСТАВЉЕН У ОНЛАЈН ЧАСОПИСУ ПОСВЕЋЕНОМ ЗАНИМЉИВИМ НАУЧНИМ ОТКРИЋИМА

NEWS

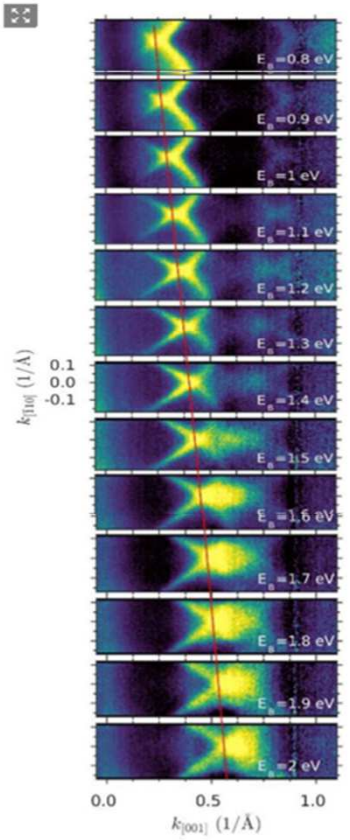
A new class of massless fermion

BY HANNAH KERR | 5 FEBRUARY 2020

Unique electronic structure characterises fortune-teller fermion

Experimental proof of a new class of massless fermion with anisotropic characteristics has been found for the first time by a team in Poland.[1] The discovery could help researchers design new graphene-like materials with previously unseen properties.

Fermions are a class of particle that include electrons, protons and neutrons. Most have mass but massless fermions were found in 2015. These are quasiparticles: electronic activity that behaves as if it were a particle in free space. Electrons in 2D materials behave like massless fermions. This behaviour has, until recently, always been associated with a feature in the electronic band structure called a Dirac cone where the valence and conduction bands take the shape of a conical surface meeting at a Dirac point. Massless Dirac fermions are isotropic and they can carry electric charge exceptionally fast because they are not slowed by backscattering. This is the basis for the extraordinary electronic properties of graphene and other 2D materials.



Source: © Ryszard Zdyb/Maria Curie-Sklodowska University

Constant energy photoemission maps of Bi/Si(110) for different electron binding energies

In 2017, scientists in Serbia predicted fortune-teller fermions, a completely new type of massless fermion, existed in 2D materials that meet specific symmetry criteria.[2] Now, researchers from Maria Curie-Sklodowska University in Poland have found physical evidence for this fermion. Angle-resolved photoelectron spectroscopy helped them to observe the band structure of a 2D silicon crystal surface. Instead of smooth Dirac cones, the conduction and valence bands form a set of intersecting planes with sharp edges, some resembling pyramids and some resembling origami fortune-tellers. The planes meet, not at a 0D Dirac point, but along a 1D Dirac line. Such a distinct electronic structure has never been observed in any known crystal, until now.

If new materials can be engineered to support these states on a larger scale then they might behave in ways never seen before.

Reference

1. M Kopciuszyński *et al*, *Nanoscale Horiz.*, 2020, DOI: 10.1039/c9nh00681h
2. V Damljanović, I Popov and R Gajić, *Nanoscale*, 2017, **9**, 19337 (DOI: 10.1039/c7nr07763g)

Hannah Kerr

Prevod sa engleskog na srpski jezik

UNIVERZITET U ŠTUTGARTU

SERTIFIKAT

Univerzitet u Štutgartu ovime dodeljuje

VLADIMIRU DAMLJANOVIĆU

rođenom 18. novembra 1971
u Beogradu, Jugoslavija

Akademsko zvanje

MAGISTRA FIZIČKIH NAUKA

Pošto je položio ispit za sticanje zvanja Magistra nauka u skladu sa odredbama.

Zvaničan prepis ocena koji prikazuje pojedinačne rezultate
i srednju ocenu je izdat kao poseban dokument.

U Štutgartu,
1. februara 2003

(pečat: Univerzitet u Štutgartu)

Prof. Dr. Ulrich Weis (svr.)
Dekan Fakulteta za fiziku

Prof. Dr. Dieter Schweitzer (svr.)
Predsedavajući ispitne komisije

Potvrđujem da je ovaj SERTIFIKAT tačno preveden sa engleskog na srpski jezik od strane stalnog sudskog tumača za engleski jezik pri Okružnom sudu u Beogradu.

Rešenje broj: 74-57/86-03
Datum: 24. decembar 2003
Br. 537/2003

STALNI SUDSKI TUMAČ ZA ENGLESKI JEZIK PRI OKRUŽNOM SUDU U BEOGRADU
JASNA FILIPOVIĆ-BOJIĆ

JASNA FILIPOVIĆ-BOJIĆ
Svetogorska 4, Beograd
Telefon: 3239-053

ФИЗИЧКИ ФАКУЛТЕТ
УНИВЕРЗИТЕТ У БЕОГРАДУ
Бр. 658/3
25. 3. 2004. г
БЕОГРАД

Na osnovu člana 119. i 120. Zakona o univerzitetu ("Službeni glasnik Republike Srbije" br. 21/2002) Naučno-nastavno veće Fizičkog fakulteta Univerziteta u Beogradu, na svojoj sednici održanoj 24. marta 2004. godine, nostrifikovalo je magistarsku diplomu koju je VLADIMIR DAMLJANOVIĆ stekao na Študgartskom univerzitetu, Nemačka, čime se priznaje ravnopravnost magistarskoj diplomi stečenoj na Fizičkom fakultetu Univerziteta u Beogradu, kao i sva prava koja takva diploma i zvanje MAGISTAR FIZIČKIH NAUKA daju.

Beograd, 25.3.2004.

DEKAN FIZIČKOG FAKULTETA

Prof. dr Milan Knežević

УНИВЕРЗИТЕТ У БЕОГРАДУ

Студентски трг 1, 11000 Београд, Република Србија
Тел.: 011 3207400; Факс: 011 2638912 E-mail: officebu@rect.bg.ac.yu

Београд, 29.10.2009. године
Број: 06-613-1467/4/09
МЧБ

На основу члана 104. став 9. Закона о високом образовању ("Службени гласник РС", бр. 76/05, 100/07-аутентично тумачење и 97/08), члана 11. Правилника о признавању страних високошколских исправа ("Гласник Универзитета у Београду", бр. 129/06 и 145/08) и одлуке Комисије Универзитета за признавање страних високошколских исправа број: 06-613-1467/3/09 од 1. октобра 2009. године, доносим

Р Е Ш Е Њ Е

ПРИЗНАЈЕ СЕ диплома **Universität Stuttgart, Штутгарт, Немачка,** од 21.01.2009. године, на коме је **Владимир (Милан) Дамљановић** стекао образовање, као диплома докторских студија са научним звањем **доктор физичких наука**.

О б р а з л о ж е њ е

Универзитету у Београду и Физичком факултету обратио се Владимир (Милан) Дамљановић рођен 18.11.1971. године у Београду, Република Србија, захтевом за признавање дипломе Universität Stuttgart, Штутгарт, Немачка, на коме је именовани стекао звање доктор природних наука.

Стручни органи Факултета размотрили су све списе предмета и предложили Комисији Универзитета доношење одлуке, којом се предметна диплома признаје као диплома докторских студија са научним звањем доктор физичких наука, што је Комисија Универзитета прихватила.

Са изложеног, одлучено је као у изреци овог решења.

ПОУКА О ПРАВНОМ ЛЕКУ:
Ово решење је коначно у управном поступку, па се против њега може покренути управни спор код Окружног суда у Београду, у року од 30 дана од дана пријема решења.

Р Е К Т О Р

Проф. др Бранко Ковачевић

Federal Ministry
Republic of Austria
Education, Science
and Research

BULGARIAN
SCIENCE
FUND

MINISTRY OF EDUCATION,
YOUTH AND SPORTS

Liberté • Égalité • Fraternité
RÉPUBLIQUE FRANÇAISE

DANUBE REGION strategy
FLAGSHIP
EU Strategy for the Danube Region

Ministry of Science
and Technological
Development

Republic of Serbia
Ministry of education,
science and technological development

SLOVAK RESEARCH
AND DEVELOPMENT
AGENCY

PROTOCOL

3rd SELECTION MEETING

MULTILATERAL SCIENTIFIC AND TECHNOLOGICAL COOPERATION IN THE DANUBE REGION

The selection meeting of the 3rd Joint Call of the Programme for Funding Multilateral Scientific and Technological Cooperation Projects in the Danube Region adopted by

- the Austrian Federal Ministry of Education, Science and Research
- the Bulgarian National Science Fund
- the Ministry of Education, Youth and Sports of the Czech Republic
- the French Ministry of Higher Education and Research and the French Ministry of Europe and Foreign Affairs
- the Ministry of Science and Technological Development of Montenegro
- the Ministry of Science, Technological Development and Innovation of the Republic of Serbia
- and the Ministry of Education, Science, Research and Sport of the Slovak Republic

took place in Vienna and Belgrade on 16 June 2023.

The representatives of the participating countries (hereinafter jointly referred to as "delegations") can be found in Annex 1.

Selection of projects for the period 2023-2025

The delegations selected according the agreed procedure and recommended to finance mobility costs of 24 co-operation projects lasting from July 2023 to June 2025. These projects are listed in Annex 2.

Next call for project proposals for the period 2025-2027

The delegations have reached an understanding that due to the success of the Joint Calls a fourth call for proposals shall be envisaged for autumn 2024. The selection meeting is planned in the second half of 2025. The details will be agreed upon by e-mail. The 4th call shall be open to further "Participants" in the Danube region but also to other interested countries joining the programme.

Done in Vienna, Podgorica and Belgrade, on 16. June 2023 in 7 original copies in English language.

Protocol: 3rd Selection Meeting of the Multilateral Scientific and Technological cooperation in the Danube Region

For the Austrian Participant

.....

Christian Gollubits

Head of Unit
Bilateral Cooperation and International S&T Agreements
Federal Ministry of Education, Science and Research of the Republic of Austria

Protocol: 3rd Selection Meeting of the Multilateral Scientific and Technological cooperation in the Danube Region

For the Bulgarian Participant

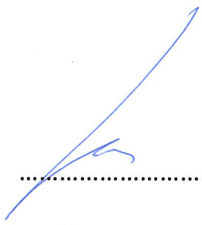
.....

Yuri Kalvachev

Manager
Bulgarian Science Fund

Protocol: 3rd Selection Meeting of the Multilateral Scientific and Technological cooperation in the Danube Region

For the Czech Participant



.....

Luděk Kos

Head of Unit
Management of International R&D Programmes Unit
Ministry of Education, Youth and Sports of the Czech Republic

Protocol: 3rd Selection Meeting of the Multilateral Scientific and Technological cooperation in the Danube Region

For the French Participant

.....

Christophe Delacourt

Head of the International Expertise Department
French Ministry of Higher Education and Research

Protocol: 3rd Selection Meeting of the Multilateral Scientific and Technological cooperation in the Danube Region

For the Montenegrin Participant

Anđela Radulović

.....

Anđela Radulović

General Secretary

Ministry of Science and Technological Development of Montenegro

Protocol: 3rd Selection Meeting of the Multilateral Scientific and Technological cooperation in the Danube Region

For the Serbian Participant

Ivana Vukašinović

Acting Assistant Minister

Department for International Cooperation and European Integration
Ministry of Science, Technological Development and Innovation

Protocol: 3rd Selection Meeting of the Multilateral Scientific and Technological cooperation in the Danube Region

For the Slovak Participant

.....

Marcel Sládok

Department of European and International Science Policy
Ministry of Education, Science, Research and Sport of the Slovak Republic

Annex 2 MSTC_DR Projects 2023-2025

Project #	Project Title	AT Project Leader - First Name	AT Project Leader - Surname	AT Organisation	FR Project Leader - First Name	FR Project Leader - Surname	FR Organisation	CZ Project Leader - First Name	CZ Project Leader - Surname	CZ Organisation	SK Project Leader - First Name	SK Project Leader - Surname	SK Organisation	SRB Project Leader - First Name	SRB Project Leader - Surname	SRB Organisation	ME Project Leader - First Name	ME Project Leader - Surname	ME Organisation	BG Project Leader - First Name	BG Project Leader - Surname	BG Organisation
1	Indicators of genetic diversity of autochthonous sheep and goat breeds from Slovakia, Austria, Czech Republic, Serbia and Montenegro	Gabor	MESZAROS	Universität für Bodenkultur Wien;				Luboš	VOSTRÝ	Czech University of Life Sciences Prague	Radovan	KASARDA	Slovak University of Agriculture in Nitra	Vladan	BOGDANOVIĆ	University of Belgrade Faculty of Agriculture	Bozidarka	MARKOVIC	University of Montenegro			
2	Convergent adaptation to challenging substrates in plants	Bozo	FRAJMAN	Universität Innsbruck;				Filip	KOLÁŘ	Charles University				Tomica	MIŠLJENOVIĆ	University of Belgrade Faculty of Biology						
3	Integral geological and geochemical study of Miocene lignite from basins in the Danube region.	Doris	GROSS	Montanuniversität Leoben;										Ksenija	STOJANOVIĆ	University of Belgrade Faculty of Chemistry, Faculty of Mining and				Irena	KOSTOVA-DINEVA	Sofia University "St. Kliment Ohridski"
4	Joint European Research and Innovation on the Belle II-Experiment (JERI-B2)	Christoph	SCHWANDA	Österreichische Akademie der	Isabelle	RIPP-BAUDOT	CNRS	Zdeněk	DOLEŽAL	Charles University												
5	Identification of defense mechanisms against harmful and aggressive pathogens in economically important							Martin	ČERNÝ	Mendel University in Brno	Jaroslav	Ďurkovič	Technical University in Zvolen	Ivan	Milenković	University of Belgrade Faculty of Forestry						
6	Synergy of multiscale Modelling and machine Learning: Strategy for biomedical sciences and battle against cancer				Adnan	Ibrahimbegovic	University of Technology Compiegne (UTC)	Anna	KUČEROVÁ	Czech Technical University in Prague				Miloš/Nenad	Kojić/Filipović	University of Kragujevac						
7	Towards a network for automated real-time monitoring of Quercus robur L. vitality in the Danube region (NetFor)	Katharina	LAPIN	Bundesforschungs- und Ausbildungszentrum für Wald, Naturgefahren und Landschaft;				Marko	STOJANOVIĆ	Global Change Research Institute of the Czech Academy of Sciences	Marek	JEŽÍK	Slovak Academy of Sciences - SAS	Srđan	STOJNIĆ	University of Novi Sad Faculty of Agriculture						
8	Species-specific effect of nucleolus in embryonic development				Amélie	Bonnet-Garnier	Centre INRA de Jouy-en-Josas	Jan	NEVORAL	Charles University (Faculty of Medicine in Pilsen)	Michal	Benc	Constantine the Philosopher University in Nitra									
9	Beneath the water surface: a study on host-parasite-microbes associations in the aquatic environments / BENEATH THE WATER SURFACE: STUDY ON HOST-SYMBIONT ASSOCIATIONS IN AQUATIC ENVIRONMENT (submitted in France)				Yves / ELODIE (in the French project)	Desdevises / MAGNANOU (in the French project)	Oceanological Observatory of Banyuls -sur-Mer (OOB) / BIOLOGIE INTÉGRATIVE DES ORGANISMES MARINS	Michal	BENOVICS	Masaryk University	Peter	Mikuliček	Comenius University Bratislava									
10	Luminescent materials for optical measurements of pressure and temperature in aerospace research	Sergey	BORISOV	Technische Universität Graz;	Benoit	FOND	Paris-Saclay University							Míroslav	DRAMIĆANIN	Vinča Institute of Nuclear Sciences						
11	Multifunctional ZnO-based hybrids for wastewater remediation							Václav	SLOVÁK	University of Ostrava	Dana	Dvoranová	Slovak University of Technology in Bratislava (STU)	Dušan	Sredojević	University of Belgrade Vinča Institute of Nuclear Sciences						
12	SiC Timepix detector				Abdallah / CHRISTOPHE (in the French proposal)	Lyoussi / DESTOUCHES (in the French proposal)	French Atomic Energy and Alternative Energies Commission	Benedikt	BERGMANN	Czech Technical University in Prague	Andrea	Šagátová	Slovak University of Technology in Bratislava (STU)									
13	Climate change Resistant Danube river embankments	Wei	WU	Universität für Bodenkultur Wien;				Lumír	MIČA	Brno University of Technology	Jana	FRANKOVSKÁ	Slovak University of Technology in Bratislava (STU)	Sanja	JOCKOVIĆ	University of Belgrade Faculty of Civil Engineering				Chavdar	KOLEV	Higher School of Transport "Todor Kableshkov" Sofia
14	Mathematical investigation of hysteresis in material modeling	Victor A.	KOVTUNENKO	Technische Universität Graz; Technische Universität Wien; Universität Graz;	Adrien	PETROV	Université de Lyon	Giselle Antunes	MONTEIRO	Institute of Mathematics of the Czech Academy of Sciences												
15	Geomorphological interpretation of photogrammetry and laser scanning data in the study of torrential watersheds				Laure	Guerit	CNRS – Géosciences Rennes, Université de Rennes	Jiří	JAKUBÍNSKÝ	Global Change Research Institute of the Czech Academy of Sciences				Ana	M. Petrović	Geographical Institute "Jovan Cvijić" of the Serbian Academy of Sciences and Arts				Valentina	Vankova Nikolova	University of Mining and Geology "St. Ivan Rilski"
16	Self-heating magnetic nanoconstructs for theranostic applications							Jarmila	VILČÁKOVÁ	Tomas Bata University in Zlín	Martina	Kubovčíková	Slovak Academy of Sciences - SAS	Miloš	Ognjanović	University of Belgrade Vinča Institute of Nuclear Sciences,The Institute of				Hristo	Kolev	Bulgarian Academy of Sciences
17	Neolithic Mobilities: Morava river basin as a case study	Michael	BRANDL	Österreichische Akademie der Wissenschaften;	Solène	DENIS	CNRS	František	TRAMPOTA	Institute of Archaeology of the Czech Academy of Sciences												
18	Novel Magnetically Bistable Cobalt(II) and Iron(II) Hofmann-like Polymers for Surface Deposition				Lucie	Routaboul	Laboratoire de Chimie de Coordination CNRS CNRS & Université de Toulouse	Bohuslav	DRAHOŠ	Palacký Univerzity Olomouc	Ivan	Šalitroš	Slovak University of Technology in Bratislava (STU)									
19	Effective elimination of drug residues in water using photocatalytic degradation				Gilles	Ledoux	Institut Lumière Matière	Zdeněk	REMEŠ	Institute of Physics of the Czech Academy of Sciences	Júlia	Mičová	Slovak Academy of Sciences - SAS									
20	Nonthermal Phase transitions in 2D Gallium Sulphide for Applications in Next-Generation Device:	Kurt	HINGERL	Institute of Physics Belgrade; Johannes Kepler Universität Linz; University of Montenegro;										Vladimir	DAMLJANOVIĆ	Institute of Physics Belgrade	Predrag	MIRANOVIC	University of Montenegro			
21	Green manuring as a tool for improvement of soil microbiome and quality of vegetables in sustainable agriculture	Gabriele	BERG	Technische Universität Graz;				Martin	KOUDELA	Czech University of Life Sciences Prague	Miroslav	ŠLOSÁR	Slovak University of Agriculture in Nitra									
22	Extreme droughts and their impact on agriculture in selected continental climates of Europe	Josef	EITZINGER	Universität für Bodenkultur Wien;							Martin	GERA	Comenius University in Bratislava							Nina	Nikolova	Sofia University "St. Kliment Ohridski"
23	Identity Dynamics in the Danube Region (based on the example of Vidin, Lom and Kozloduy)							Lenka	JAKOUBKOVÁ BUDILOVÁ	Charles University	Ivan	Souček	Matej Bel University							Mira	Markova	Sofia University "St. Kliment Ohridski"
24	New generation networks based on hybrid configuration with integrated passive optical components (NetCom)	Dana	SEYRINGER	FH Vorarlberg;				Jan	LÁTAL	VSB - Technical University of Ostrava	Jozef	CHOVAN	Slovak Centre of Scientific and Technical Information									

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ИНСТИТУТ ОД НАЦИОНАЛНОГ ЗНАЧАЈА ЗА РЕПУБЛИКУ СРБИЈУ
Прегревица 118, 11080 Земун - Београд, Република Србија
Телефон: +381 11 3713000, Факс: +381 11 3162190, www.ipb.ac.rs
ПИБ: 100105980, Матични број: 07018029, Текући рачун: 205-66984-23

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Број 0801-1142/2
Датум 07. 07. 2025

ПОТВРДА О РУКОВОЂЕЊУ ПОТПРОЈЕКТОМ

Овим потврђујем да је др Владимир Дамљановић, виши научни сарадник Института за физику Београд, руководио потпројектом „Предикција електронских дисперзија дводимензионалних материјала помоћу симетрије“, у оквиру пројекта „Физика уређених наноструктура и нових материјала у фотоници“, Министарства просвете науке и технолошког развоја Републике Србије под бројем ОИ 171005.

Руководилац пројекта ОИ 171005

Др Радош Гајић,
научни саветник
Институт за физику Београд

ПРЕДАВАЊА ПО ПОЗИВУ (ОСИМ НА КОНФЕРЕНЦИЈАМА) – ПОЗИВНА ПИСМА

JOHANNES KEPLER
UNIVERSITÄT LINZ

Prof. DI Dr. Kurt Hingerl
Zentrum für Oberflächen- und Nanoanalytik

T +43 732 2468 5801
F +43 732 2468 5816
kurt.hingerl@jku.at

Sekretariat:
Elisabeth Mayrhofer
elisabeth.mayrhofer@jku.at
DW 5800

To whom it may concern
Austrian Consulate in Serbia

University Belgrade
Dr. Vladimir Damljanovic
Institute of Physics Belgrade
Pregrevica 118, 11080 Belgrade, Serbia
http://www.ipb.ac.rs/

Linz, 2021-05-30

Re: Invitation for Lectures for Dr. Vladimir Damljanovic to Johannes Kepler University Linz

Dear Madam, dear Sir,

We hereby invite Dr Vladimir Damljanovic from University Belgrade, Institute of Physics to give in total 4 lectures from the 22nd of June 2021 to the 1st of July 2021 to the Johannes Kepler University, Austria, for Master and PhD students, as well as the JKU faculty. The trip expenses are all paid by JKU, and the JKU is fully reimbursed by the European Community in the frame of an ERASMUS+ project. The trip has to be in this time slot, because the project terminates in the summer 2021 and the summer term at JKU ends on the 1st of July. Afterwards no students will be present at the university.

We ask Vladimir to treat the following preferred topics:

1. An introductory lecture to mathematical group theory
2. An introductory lecture to group theory in crystalline solids
3. A lecture on application of group theory in magnetic solids
4. Applications of group theory to quantum mechanics.

We ask to issue the visa and all other documents for the trip in advance. If necessary, we can provide a copy of the ERASMUS+ grant agreement.

Johannes Kepler Universität · Zentrum für Oberflächen- und Nanoanalytik · Altenberger Str. 69 · Tel. (0732) 2468-8841

Univ. Prof. Dr. Kurt Hingerl

JOHANNES KEPLER UNIVERSITÄT LINZ
Altenberger Straße 69
4040 Linz, Österreich
www.jku.at
DVR 0093696

JOHANNES KEPLER
UNIVERSITÄT LINZ

Prof. DI Dr. Kurt Hingerl
Zentrum für Oberflächen- und Nanoanalytik

T +43 732 2468 5801
F +43 732 2468 5816
kurt.hingerl@jku.at

Sekretariat:
Elisabeth Mayrhofer
elisabeth.mayrhofer@jku.at
DW 5800

To whom it may concern
Austrian Consulate/Embassy in Serbia

University Belgrade
Dr. Vladimir Damljanovic
Institute of Physics Belgrade
Pregrevica 118, 11080 Belgrade, Serbia
http://www.ipb.ac.rs/

Linz, 2023-05-17

Re: Invitation for Lecture and Research at Johannes Kepler University Linz for Dr. Vladimir Damljanovic

Dear Madam, dear Sir,

I hereby invite Dr Vladimir Damljanovic from University Belgrade, Institute of Physics, to give one lecture and perform together with me and my group members research on "Group Theory" from the 1st of July 2023 to the 31st of July 2023 to the Johannes Kepler University, Austria. The trip has to be in this time slot, because the summer term ends, but neither I nor my coworkers are taking vacations.

Valdimir will not be formally employed by JKU, but all his expenses (hotel, trip, daily allowance) will be covered. I ask the Austrian Consulate or Embassy to issue the respective visum. A copy of the research fellowship assignment can be sent in addition, if necessary.

Univ. Prof. Dr. Kurt Hingerl

Johannes Kepler Universität
A-4040 Linz
Altenberger Str. 69
Tel. (0732) 2468-8841
Zentrum für Oberflächen- und Nanoanalytik

Gastkolloquium

Center for Surface- and Nanoanalytics Linz

JKU Zentrum für Oberflächen- und Nanoanalytik

VLADIMIR DAMLIJANOVIC
Associate ResearchProfessor
Institute of Physics Belgrad
Centre for Solid State Physics and New Materials
damlja@ipb.ac.rs

Explanation of known and prediction of new quasiparticles in two dimensional materials using symmetry

The electronic dispersion – the form of a band structure in the vicinity of the Fermi energy, determines some of the material physical properties. Presence of Dirac cones near point-like band contacts at the corners of the Brillouin zone in graphene is one famous example.

Unmovable band touching points and lines are intact by symmetry preserving perturbations. Their positions in the reciprocal space and the dispersions (qusiparticles) in their vicinity (but unfortunately not their energy relative to the Fermi level) are determined by the very symmetry of the material. All quasiparticles of all possible symmetries of non-magnetic 2D materials near all unmovable band contacts have been recently determined [1]. In total nineteen quasiparticles were found [1], very few of them being discussed in the literature so far. In this talk our recently published results [1] are discussed together with a few ideas towards realization of 2D materials with the prescribed symmetry and with the right placement of the Fermi level. In this respect comments and discussions from the audience involved in the physics of 2D materials in the lab will be highly appreciated.

[1] V. Damljanović, N. Lazić: *"Electronic structures near unmovable nodal points and lines in two-dimensional materials"*, Journal of Physics A: Mathematical and Theoretical **56**, 215201 (2023).

Date: 12th of July 2023 Time: 10:15 a.m. Room: HS13

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materials [redacted]
Minor re[redacted]
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2. May [redacted]
3. I cou[redacted]d it
seems [redacted]

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COMMENTS [redacted]
Fu et al. pres[redacted]k structure
with a 2D lattice[redacted] AA pa[redacted]compa[redacted]ith the
conventional space gr[redacted]e topic is interesting and will likely attract the attention of researchers from various fields. Based on these considerations, this manuscript can be published with minor revisions. Detailed comments that may improve the manuscript are listed below.
1. Does the classification method apply to the AA'-stacked bulk structure?
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Руководилац пројекта ОИ171005

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FACULTY OF PHYSICS

Jelena R. Pešić

INVESTIGATION OF SUPERCONDUCTIVITY IN GRAPHENE AND RELATED MATERIALS USING AB-INITIO METHODS

dissertation

Belgrade, 2017

UNIVERZITET U BEOGRADU
FIZIČKI FAKULTET

Jelena R. Pešić

ISTRAŽIVANJE SUPERPROVODNOSTI U GRAFENU I SLIČNIM MATERIJALIMA KORIŠĆENJEM AB-INITIO METODA

disertacija

Beograd, 2017

Mentor:

dr Radoš Gajić,
naučni savetnik,
Institut za fiziku, Univerzitet u Beogradu

Članovi komisije:

dr Kurt Hingerl
professor
Johannes Kepler University, Linz , Austria

dr Ivanka Milošević
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Datum odbrane: 4. Decembar 2017

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I would like to thank Professor dr. Ilko Bald and dr. Julia Prinz from Univeristy of Potsdam, Germany. A fruitful collaboration between our research groups have resulted with several joint publications on graphene and organic nanostructures.

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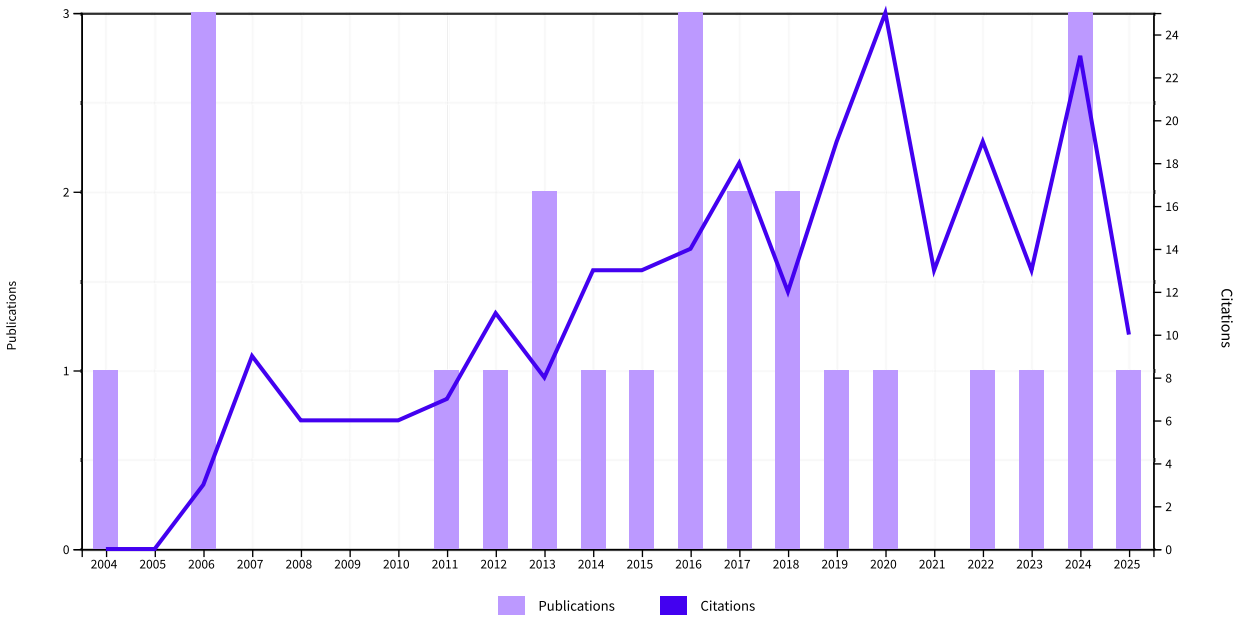

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	Mar 2006 | PHYSICAL REVIEW B 73 (9)							
2	Existence of Dirac cones in the Brillouin zone of diperiodic atomic crystals according to group theory Damljanovic, V and Gajic, R Mar 2 2016 | JOURNAL OF PHYSICS-CONDENSED MATTER 28 (8)	2	1	1	2	1	1.4	14
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6	Growth and oxygen treatment of $SrFeO_{3-y}$ single crystals Maljuk, A; Lebon, A; (...); Keimer, B Jun 1 2006 | JOURNAL OF CRYSTAL GROWTH 291 (2) , pp.412-415	1	1	0	0	0	0.45	9
7	Existence of semi-Dirac cones and symmetry of two-dimensional materials Damljanovic, V and Gajic, R May 10 2017 | JOURNAL OF PHYSICS-CONDENSED MATTER 29 (18)	0	1	0	2	0	0.89	8
8	Addendum to 'Existence of Dirac cones in the Brillouin zone of diperiodic atomic crystals according to group theory' Damljanovic, V and Gajic, R Nov 2 2016 | JOURNAL OF PHYSICS-CONDENSED MATTER 28 (43)	0	1	1	1	1	0.8	8
9	Fully linear band crossings at high symmetry points in layers: classification and role of spin-orbit coupling and time reversal Lazic, N; Damljanovic, and Damnjanovic, M Aug 12 2022 | JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL 55 (32) Enriched Cited References	0	0	2	4	0	1.5	6

10	Characters of graphene's symmetry group Dg80 Damljanovic, V; Kostic, R and Gajic, R 4th International School and Conference on Photonics Sep 2014 | PHYSICA SCRIPTA T162	0	0	1	1	0	0.42	5
11	Phonon eigenvectors of graphene at high-symmetry points of the Brillouin zone Damljanovic, V and Gajic, R 3rd International School and Conference on Photonics Apr 2012 | PHYSICA SCRIPTA T149	0	0	0	0	0	0.36	5
12	Peculiar symmetry-protected electronic dispersions in two-dimensional materials Damljanovic, V; Lazic, N; (...); Damnjanovic, M Nov 18 2020 | JOURNAL OF PHYSICS-CONDENSED MATTER 32 (48) Enriched Cited References	0	1	1	2	0	0.67	4
13	Growth of $RuSr_2GdCu_2O_8$ films by post-annealing of pulsed laser deposited precursors Matveev, AT; Cristiani, G; (...); Habermeier, HU Dec 15 2004 | PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS 417 (1-2) , pp.50-57	0	0	0	0	0	0.18	4
14	Movable but unavoidable nodal lines through high-symmetry points in 2D materials Damljanovic, V Apr 4 2023 | PROGRESS OF THEORETICAL AND EXPERIMENTAL PHYSICS 2023 (4) Enriched Cited References	0	0	0	2	1	1.5	3
15	Electronic structures near unmovable nodal points and lines in two-dimensional materials Damljanovic, V and Lazic, N May 26 2023 | JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL 56 (21) Enriched Cited References	0	0	0	2	1	1	3
16	M-POINT PHONON EIGENVECTORS OF GRAPHENE OBTAINED BY GROUP PROJECTORS Damljanovic, V; Kostic, R and Gajic, R 2013 | ROMANIAN REPORTS IN PHYSICS 65 (1) , pp.193-203	0	0	0	0	0	0.23	3
17	An example of diperiodic crystal structure with semi-Dirac electronic dispersion Damljanovic, V	0	0	0	1	0	0.25	2

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20	Existence of Mexican-hat dispersion and symmetry group of a layer Damljanovic, V May 2025 | PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES 170 Enriched Cited References	0	0	0	0	1	1	1
21	Non-magnetic layers with a single symmetry-protected Dirac cone: Which additional dispersions must appear? Damljanovic, V Sep 2024 | EPL 147 (5)	0	0	0	0	0	0	0
22	Centrosymmetric, non-symmorphic, non-magnetic, spin-orbit coupled layers without Dirac cones Damljanovic, V Jun 27 2024 | OPTICAL AND QUANTUM ELECTRONICS 56 (7) Enriched Cited References	0	0	0	0	0	0	0
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24	Simple analytical relation between vibrational frequencies of linear XY_2-type molecules Damljanovic, V May 2016 | OPTICAL AND QUANTUM ELECTRONICS 48 (5)	0	0	0	0	0	0	0
25	On the Reflectivity of One-Dimensional Photonic Crystal Realized in Dichromated Pullulan Damljanovic, V; Savic-Sevic, S; (...); Jelenkovic, B 12th International Conference on Transparent Optical Networks (ICTON)	0	0	0	0	0	0	0

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