CASE STUDY – LOWEDSYM: Symmetry, why don't THEY like you?

	Round1 92% = excellent	Round2 total 73.1% (25.6 of 35) = hardly passed threshold
Excell ence Strengt hs	(37 of 40; 92.5%) The proposed research methodology is appropriate to achieve the goals of the project. It is sound and well detailed. It is convincingly demonstrated that the proposed research will surely lead to publications in high-impact journals/books and other scholarly publications relevant for the scientific field of the proposal. <i>It is well argumented that the planned results of the proposed research will be significant and applicable</i> . It is well demonstrated that the proposed research objectives are clearly beyond the state-of-the-art. The proposed research scientifically founded in recent scientific publications and it is sound.	(7.2 of 10; 72%) Very good theoretical proposal in the field of condensed matter physics in a topological phases of low dimension crystalline matter. The mathematical approach appears to be of the rare that should give answer of relevance of the complex quantum mechanical in quasi 1D or 2D systems. The benefit should be important knowing the growing interest for complex systems that are under development. See 1
Excell ence Weakn esses	The proposed research is only in part original	Weakness appears in the objective 3 regarding applications to material. It seems that to validate the approach will rely on a comparison with the DF Tight Binding, and that comparison is the application objective. <i>It is therefore quite frustrating to do not see real applications for materials.</i> See 2
Impact Strengt hs	(26 of 30;87%) The research results and/or acquired data will be made available for other researchers beyond the project team. An open research and open data approach is clearly developed. The proposed measures for dissemination and application of the results are adequately developed. The proposed research has a strong a potential to contribute to the development of the specific scientific field. It is well detailed that the proposed research has a potential to contribute to the science, economy or society at the national level. Moreover, the proposed research has a strong potential to have a global broader impact.	(7.6 of 10;76%) This is a curiosity driven proposal that will increase the visibility of the team at international level. A real potential for high impact publication as one should expect for <i>science at cutting edge</i> .
Impact Weakn esses	The stakeholders are not clearly identified reducing the potential implementation of the project results.	A <i>small weakness</i> appears in the outcome for proper and relevant systems <i>that was not deeper discussed in the proposal</i> . The applicants should invest more effort while <i>designing the overall impact section</i> in the proposal, which will enable higher ranking of the proposal in a competitive call like IDEAS. See 3
Imple mentat ion Streng hts	(29 of 30;97%) The budget is realistic and well balanced. The roles of the Project team members are clearly outlined, and their fields of expertise complementary. It is well demonstrated that the Project team has all the necessary know-how to bring success to the project. The risk management is properly implemented and the mitigation measures very well planned. The proposed research methodology and work plan are coherent, effective to achieve the Project objectives and impact. The allocation of resources is adequatly provided to tasks and members. It is convincingly demonstrated that the key members of the Project team have the necessary scientific/scholarly credentials to bring success to the project. The PI have largely	(7.4 of 10; 74%) The team of 10 persons is very good with a lot of expertise in the relevant domains, with a strong participation of Female. The team has potential to improve their skills individually and globally, with also a collaboration with a US team. The proposal has been well prepared, and the clear objectives are nicely connected. The methodology is well described and seems well indicator for the objectives.

	demonstrated the necessary scientific/scholarly credentials and scientific leadership in the field of the project proposal. PI's scientific records are excellent.	
Imple mentat ion Weakn esses	No major weaknesses	PI and team members are also involved in other research projects that may affect the outcomes of the present proposal. (See 4) <i>A back up plan in case the US collaboration stops is not elaborated</i> (See 5). Although there are no major weaknesses in the project implementation, overall conclusion is that the implementation plan and risks should be better presented in the proposal which would <i>contribute to the higher ranking of the project in general</i> . See 6
Final Stren.	This an excellent scientific project led by a highly qualified PI. All the sections of the project are well developed.	Very interesting and competitive project on one difficult theoretical proposal in the field of condensed matter physics leads by a strong PI and a competent team of expert. Very interesting, well addressed, presented, and discussed. Together with the robust methodology the project has been discussed with a lot of care.
Final Weakn esses	The stakeholders in the impact section are only vaguely identified.	The project cannot be funded given the available funds within the program, as its rank is determined by the overall score from both stages of evaluation. The panel agrees that after applying given comments for improvement of the proposal, the PI and the team should resubmit this idea for one of the future calls for research funding. The applicants should be aware that the impact of this very good project was not competitive with other projects within this panel, so they are advised to consider this in their future applications.
Presenati	on Presentation Not an item	(3.4 of 5;68%) No explanation, no hint to improve (for subtracted giant 32%)

Comments: 1. 72% cannot be very good, it is at most average (threshold at 24).

2. Contradictory to Very good theoretical proposal. Quite frustrating (exactly subtracted 28% tax for theory) to do not see real (???) applications for materials.

3. "Science at cutting edge" with "small weakness in designing the overall impact section" (whatever this means) but still only 74% points.

4. PI and team involved in bilateral projects, relevant for exploitation and experimental verifications (see 2) of proposal results! Can this be negative?

5. US collaborator is within project team, accepting all responsibilities, the same as others. Which kind of extra risks are to be considered? And why?

6. *Higher ranking in general:* Was the rank already known?! No major weeknesses, cutting edge, strong PI = 25.6 of 35 (26.4 needed for funding!).

ATTITUDE: LACK OF EXPLANATION, ARGUMENTS: Opposite lengths of comments (in characters) in Round1/Panel for Strengths (2239/1312) and Weaknesses (218/1566). Penalized theory for no experimental verification, which exists, but is again penalized as "other research project". Risk of disappearing US member!

LOGIC: ~70% each item, independently of textual descriptions which vary significantly. Targeted mark?!

No correlation: cutting edge science, very good project, small weaknesses=bad marks! **Do the same people made marks and textual description? DIGESTED PHYSICS PART OF PANEL (chief: <u>Victor Malka</u>): NO PROJECT FROM CONDENSED MATTER/SOLID STATE IS FUNDED**, where 50+% of physicists in Serbia (and world)! **Funded projects: 5 from Lasers&Plasma, 2 from Particles&fieldss.**

Because THEY are asymmetric!