# SCORESHEET

| | | |
|---|---|---|
| stage: 1 | fight (round no.): 1 | room: G | problem no.: 8 | Juror's name: ALAN ALLINSON |
| reporter: UKRAINE | opponent: SERBIA | reviewer: CHINA. | | signature: _(signed)_ |

## REPORTER — UKRAINE
Start from 1 and add/subtract

$1 + \boxed{2.5} + \boxed{1.5} - \boxed{\cancel{2}} = \boxed{5}$

(LANG)

### REPORT

| | phenomenon explanation | theory/model | relevant experiments | comparison between theory and experiment | own contribution | task fulfilment |
|---|---|---|---|---|---|---|
| 0 | almost no | almost no | too few | no/ almost no | others' data, incorrectly cited | misunderstood |
| 1 | some | some | ~~some~~ | some | review of sources, cited | partly |
| 2 | fair | fair | fair ✗ | not well fitting | some own input ✗ | average |
| 3 | good | good | well performed, sufficient number | deviations qualitatively analysed ✗ | some interesting results | interesting solution |
| 4 | | | | | | |
| 5 | detailed demonstrative | quite detailed, correct | + results explained errors analysed | + theory limits explained, conclusive | considerable experimental or theoretical | some aspects above average |
| 6 | deep and comprehensible, shows physical insight | detailed, complex, completely testable | + reproducible, convincing analysis | well fitting, deviations analysed, conclusive | considerable experimental and theoretical | greater extent than expected |

NOTES: Nature of inhomogeneity     basic idea good     well performed but too few!     limited.     Evaluated diff methods Lens + Mirror

### DISCUSSION WITH OPPONENT

| | scientific contribution | relevant arguments/responses | efficiency |
|---|---|---|---|
| 0 | almost no | too few | almost no, chaotic |
| | only technical points cleared | some ✗ | avoided some questions |
| 1 | some scientific points cleared | many | cooperated well ✓ |
| 2 | | | |
| 3 | interesting points discussed | + data/theory convincingly supported | answered directly to most questions |
| 4 | brought in new physics | proved deep understanding | efficient, productive |

### ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked _(circled)_ |
| -1 | some incorrect, ✗ inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

## OPPONENT — SERBIA.
Start from 1 and add/subtract

$1 + \boxed{0.5} + \boxed{1.5} + \boxed{1} - \boxed{\cancel{1/2}} = \boxed{5}$   Milena

### QUESTIONS ASKED

| | |
|---|---|
| 0 | almost no, irrelevant |
| | some relevant, aimed at resolving ✗ |
| 1 | some unclear points |
| 2 | short allowing short answers, prioritized, all time used |

NOTES:

### OPPOSITION (SPEECH)

| | time used | understanding of presentation | relevant topics addressed | correct own opinions expressed | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | almost nothing | no or irrelevant | almost no ✓ | no |
| 1 | very little | some main points | few | some | almost no ✓ |
| 2 | not all | main points | some | to important topics | some |
| 3 | almost all | all relevant points | many | to most topics | reasonable |
| 4 | all & efficiently | practically all points | practically all | + improvement suggestions | very good |

### DISCUSSION WITH REPORTER

| | scientific contribution | relevance of topics | own opinions presented | efficiency | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | irrelevant | very little | almost no | no |
| 1 | little | some ✓ | some ✗ | to some extent ✗ | almost no ✗ |
| 2 | partial ✗ | average | some correct | leading or cooperative ✗ | some |
| 3 | good | many | many correct | quite efficient | reasonable |
| 4 | new crucial point(s) | almost all | + improvement suggestions | very efficient | very good |

Humidity? Room effects?

### ANSWERS TO JURY and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| -1 | some incorrect, ✗ inconclusive or too long   -1✗ |
| -2 | deeply incorrect or show deep misconceptions |

## REVIEWER — Riyi Ding
Start from 1 and add/subtract

$1 + \boxed{2} + \boxed{2} + \boxed{1.5} - \boxed{0} = \boxed{7}$

### QUESTIONS ASKED

| | |
|---|---|
| 0 | too few, mostly irrelevant |
| 1 | some relevant, sufficient number, could clear things out |
| 2 | most time used, many unclear points resolved, aimed at both rep. and opp. |
| 3 | +short, apt and clear, well prioritized time managed efficiently |

### REVIEW OF REPORT

| | report summary & understanding | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few | irrelevant | no |
| 1 | partial | too short/long | some | partially relevant | almost no |
| 2 | good ✗ | relevant parts | many ✗ | mostly adequate ✗ | some |
| 3 | detailed, complex | accurate, conclusive | + improvement suggestions | fully adequate | good ✗ |

### REVIEW OF OPPOSITION

| | speech summary | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few | irrelevant | no |
| 1 | too short/long | too short/long | some | partially relevant | almost no |
| 2 | informative, apt ✗ | relevant parts | many ✗ | mostly adequate | some ✗ |
| 3 | brief but accurate | accurate, conclusive | + improvement suggestions | fully adequate | good |

### ANSWERS TO JURY QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| -1 | some incorrect, inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

NOTES: P or DP gradient?

# SCORESHEET

stage: _____  fight (round no.): _____  room: G  problem no.: 8  Juror's name: V. Lobyshev

reporter: M. Kovalenko  opponent: Milena  reviewer: _____  signature: Blust

## REPORTER

Start from 1 and add/subtract

$1 + \boxed{3} + \boxed{2} - \boxed{0} = \boxed{6}$

### REPORT

| | phenomenon explanation | theory/model | relevant experiments | comparison between theory and experiment | own contribution | task fulfilment |
|---|---|---|---|---|---|---|
| 0 | almost no | almost no | too few | no/ almost no | others' data, incorrectly cited | misunderstood |
| 1 | some | some | some | some | review of sources, cited | partly |
| 2 | fair | fair | fair | not well fitting | some own input | average |
| 3 | good | good | well performed, sufficient number | deviations qualitatively analysed | some interesting results | interesting solution |
| 4 | | | | | | |
| 5 | detailed demonstrative | quite detailed, correct | + results explained errors analysed | + theory limits explained, conclusive | considerable experimental or theoretical | some aspects above average |
| 6 | deep and comprehensible, shows physical insight | detailed, complex, completely testable | + reproducible, convincing analysis | well fitting, deviations analysed, conclusive | considerable experimental and theoretical | greater extent than expected |

### DISCUSSION WITH OPPONENT

| | scientific contribution | relevant arguments/responses | efficiency |
|---|---|---|---|
| 0 | almost no | too few | almost no, chaotic |
| 1 | only technical points cleared | some | avoided some questions |
| 2 | some scientific points cleared | many | cooperated well |
| 3 | interesting points discussed | + data/theory convincingly supported | answered directly to most questions |
| 4 | brought in new physics | proved deep understanding | efficient, productive |

### ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| -1 | some incorrect, inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

NOTES:

## OPPONENT

Start from 1 and add/subtract

$1 + \boxed{1} + \boxed{3} + \boxed{2} - \boxed{0} = \boxed{6}$

### QUESTIONS ASKED

| | |
|---|---|
| 0 | almost no, irrelevant |
| 1 | some relevant, aimed at resolving some unclear points |
| 2 | short allowing short answers, prioritized, all time used |

### OPPOSITION (SPEECH)

| | time used | understanding of presentation | relevant topics addressed | correct own opinions expressed | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | almost nothing | no or irrelevant | almost no | no |
| 1 | very little | some main points | few | some | almost no |
| 2 | not all | main points | some | to important topics | some |
| 3 | almost all | all relevant points | many | to most topics | reasonable |
| 4 | all & efficiently | practically all points | practically all | + improvement suggestions | very good |

### DISCUSSION WITH REPORTER

| | scientific contribution | relevance of topics | own opinions presented | efficiency | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | irrelevant | very little | almost no | no |
| 1 | little | some | some | to some extent | almost no |
| 2 | partial | average | some correct | leading or cooperative | some |
| 3 | good | many | many correct | quite efficient | reasonable |
| 4 | new crucial point(s) | almost all | + improvement suggestions | very efficient | very good |

### ANSWERS TO JURY and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| -1 | some incorrect, inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

NOTES:

## REVIEWER

Start from 1 and add/subtract

$1 + \boxed{3} + \boxed{2} + \boxed{2} - \boxed{1} = \boxed{7}$

### QUESTIONS ASKED

| | |
|---|---|
| 0 | too few, mostly irrelevant |
| 1 | some relevant, sufficient number, could clear things out |
| 2 | most time used, many unclear points resolved, aimed at both rep. and opp. |
| 3 | +short, apt and clear, well prioritized time managed efficiently |

### REVIEW OF REPORT

| | report summary & understanding | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few | irrelevant | no |
| 1 | partial | too short/long | some | partially relevant | almost no |
| 2 | good | relevant parts | many | mostly adequate | some |
| 3 | detailed, complex | accurate, conclusive | + improvement suggestions | fully adequate | good |

### REVIEW OF OPPOSITION

| | speech summary | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few | irrelevant | no |
| 1 | too short/long | too short/long | some | partially relevant | almost no |
| 2 | informative, apt | relevant parts | many | mostly adequate | some |
| 3 | brief but accurate | accurate, conclusive | + improvement suggestions | fully adequate | good |

### ANSWERS TO JURY QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| -1 | some incorrect, inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

NOTES:

# SCORESHEET

stage: **1**   fight (round no.): **1**   room: **K**   problem no.: **8.**   Juror's name: **Narit**

reporter: **Ukraine**   opponent: **Serbia**   reviewer: **China**   signature: **~~5.~~**

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## REPORTER

**1 +** [3.2] **+** [1.5] **−** [0.6] **=** ~~5.7~~ 5.1 ≈ 5.

### REPORT

| | phenomenon explanation | theory/model | relevant experiments | comparison between theory and experiment | own contribution | task fulfilment |
|---|---|---|---|---|---|---|
| 0 | almost no | almost no | too few | no/ almost no | others' data, incorrectly cited | misunderstood |
| 1 | some | some | some | some | review of sources, cited | partly |
| 2 | fair | fair | fair | not well fitting | some own input | average |
| 3 | ~~good~~ | ~~good~~ | well performed, sufficient number | deviations qualitatively analysed | some interesting results | interesting solution |
| 4 | detailed demonstrative | quite detailed, correct | + results explained errors analysed | + theory limits explained, conclusive | considerable experimental or theoretical | some aspects above average |
| 5 | | | | | | |
| 6 | deep and comprehensible, shows physical insight | detailed, complex, completely testable | + reproducible, convincing analysis | well fitting, deviations analysed, conclusive | considerable experimental and theoretical | greater extent than expected |

### DISCUSSION WITH OPPONENT

| | scientific contribution | relevant arguments/responses | efficiency |
|---|---|---|---|
| 0 | almost no | too few | almost no, chaotic |
| 1 | only technical points cleared | ~~some~~ | avoided some questions |
| 2 | some scientific points cleared | many | cooperated well |
| 3 | interesting points discussed | + data/theory convincingly supported | answered directly to most questions |
| 4 | brought in new physics | proved deep understanding | efficient, productive |

### ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | ~~concise and correct or~~ no questions asked |
| | ✗ some incorrect, inconclusive or too long |
| −1 | |
| −2 | deeply incorrect or show deep misconceptions |

**NOTES:**

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## OPPONENT

**1 +** [1.2] **+** [2] **+** [2] **−** [0.3] **=** [5.9] ≈ 6

### QUESTIONS ASKED

| | |
|---|---|
| 0 | almost no, irrelevant |
| 1 | ✗ some relevant, aimed at resolving some unclear points |
| 2 | short allowing short answers, prioritized, all time used |

**NOTES:** Milena.

### OPPOSITION (SPEECH)

| | time used | understanding of presentation | relevant topics addressed | correct own opinions expressed | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | almost nothing | no or irrelevant | almost no | no |
| 1 | very little | some main points | few | to important topics | almost no |
| 2 | not all | main points | some | ✗ some | |
| 3 | almost all | all relevant points | many | to most topics | reasonable |
| 4 | all & efficiently | practically all points | practically all | + improvement suggestions | very good |

### DISCUSSION WITH REPORTER

| | scientific contribution | relevance of topics | own opinions presented | efficiency | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | irrelevant | very little | almost no | no |
| 1 | little | some | some | to some extent | almost no |
| 2 | partial | average | some correct | leading or cooperative | some |
| 3 | good | many | many correct | quite efficient | reasonable |
| 4 | new crucial point(s) | almost all | + improvement suggestions | very efficient | very good |

### ANSWERS TO JURY and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | ✗ concise and correct or no questions asked |
| −1 | some incorrect, inconclusive or too long |
| −2 | deeply incorrect or show deep misconceptions |

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## REVIEWER

**1 +** [2.6] **+** [2.5] **+** [2.3] **−** [0.2] **=** [8.2] ≈ 8

### QUESTIONS ASKED

| | |
|---|---|
| 0 | too few, mostly irrelevant |
| | some relevant, sufficient number, could clear things out |
| 1 | |
| 2 | most time used, many unclear points resolved, aimed at both rep. and opp. |
| 3 | ✗ +short, apt and clear, well prioritized time managed efficiently |

### REVIEW OF REPORT

| | report summary & understanding | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few | irrelevant | no |
| 1 | partial | too short/long | some | partially relevant | almost no |
| 2 | good | relevant parts | ✗ many | mostly adequate | some |
| 3 | detailed, complex | accurate, conclusive | + improvement suggestions | fully adequate | ✗ good |

### REVIEW OF OPPOSITION

| | speech summary | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few | irrelevant | no |
| 1 | too short/long | too short/long | some | partially relevant | almost no |
| 2 | informative, apt | relevant parts | ✗ many | mostly adequate | some |
| 3 | brief but accurate | accurate, conclusive | + improvement suggestions | fully adequate | good |

### ANSWERS TO JURY QUESTIONS

| | |
|---|---|
| 0 | ✗ concise and correct or no questions asked |
| −1 | some incorrect, inconclusive or too long |
| −2 | deeply incorrect or show deep misconceptions |

**NOTES:**

# SCORESHEET

stage: 1    fight (round no.): 1    room: G    problem no.: 8    Juror's name: *Jasila Jahi*

reporter: Ukraine    opponent: Serbia    reviewer: China    signature: *[signature]*

## REPORTER

Start from 1 and add/subtract

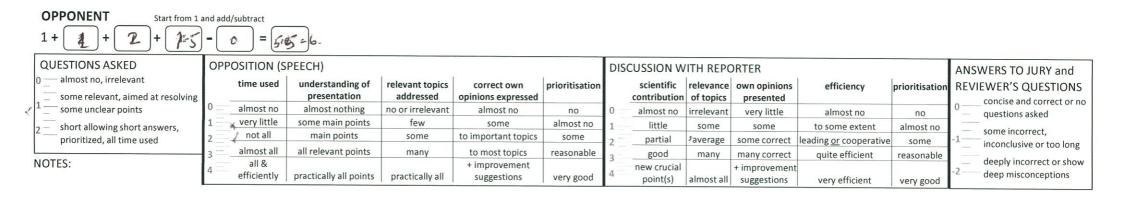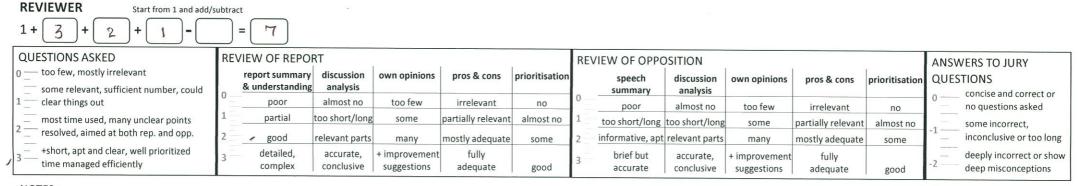$1 + \boxed{3} + \boxed{1} - \boxed{0} = \boxed{5}$

### REPORT

| | phenomenon explanation | theory/model | relevant experiments | comparison between theory and experiment | own contribution | task fulfilment |
|---|---|---|---|---|---|---|
| 0 | almost no | almost no | too few | no/ almost no | others' data, incorrectly cited | misunderstood |
| 1 | some | some | some | some | review of sources, cited | partly |
| 2 | fair | fair | fair | not well fitting | some own input | average |
| 3 | ✓ good | ✓ good | ✓ well performed, sufficient number | deviations qualitatively analysed | some interesting results | interesting solution |
| 4 | | | | | | |
| 5 | detailed demonstrative | quite detailed, correct | + results explained errors analysed | + theory limits explained, conclusive | considerable experimental _or_ theoretical | some aspects above average |
| 6 | deep and comprehensible, shows physical insight | detailed, complex, completely testable | + reproducible, convincing analysis | well fitting, deviations analysed, conclusive | considerable experimental _and_ theoretical | greater extent than expected |

### DISCUSSION WITH OPPONENT

| | scientific contribution | relevant arguments/responses | efficiency |
|---|---|---|---|
| 0 | almost no | too few | almost no, chaotic |
| | only technical | some | avoided some questions |
| 1 | points cleared | | |
| 2 | ✓ some scientific points cleared | many | cooperated well |
| 3 | interesting points discussed | + data/theory convincingly supported | answered directly to most questions |
| 4 | brought in new physics | proved deep understanding | efficient, productive |

### ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| -1 | some incorrect, inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

NOTES:

## OPPONENT

Start from 1 and add/subtract

$1 + \boxed{1} + \boxed{2} + \boxed{1.5} - \boxed{0} = \boxed{5.5 = 6}$

### QUESTIONS ASKED

| | |
|---|---|
| 0 | almost no, irrelevant |
| 1 | some relevant, aimed at resolving some unclear points |
| 2 | short allowing short answers, prioritized, all time used |

### OPPOSITION (SPEECH)

| | time used | understanding of presentation | relevant topics addressed | correct own opinions expressed | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | almost nothing | no or irrelevant | almost no | no |
| 1 | ✗ very little | some main points | few | some | almost no |
| 2 | ✓ not all | main points | some | to important topics | some |
| 3 | almost all | all relevant points | many | to most topics | reasonable |
| 4 | all & efficiently | practically all points | practically all | + improvement suggestions | very good |

### DISCUSSION WITH REPORTER

| | scientific contribution | relevance of topics | own opinions presented | efficiency | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | irrelevant | very little | almost no | no |
| 1 | little | some | some | to some extent | almost no |
| 2 | partial | ✓ average | some correct | leading or cooperative | some |
| 3 | good | many | many correct | quite efficient | reasonable |
| 4 | new crucial point(s) | almost all | + improvement suggestions | very efficient | very good |

### ANSWERS TO JURY and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| -1 | some incorrect, inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

NOTES:

## REVIEWER

Start from 1 and add/subtract

$1 + \boxed{3} + \boxed{2} + \boxed{1} - \boxed{\phantom{0}} = \boxed{7}$

### QUESTIONS ASKED

| | |
|---|---|
| 0 | too few, mostly irrelevant |
| 1 | some relevant, sufficient number, could clear things out |
| 2 | most time used, many unclear points resolved, aimed at both rep. and opp. |
| 3 | +short, apt and clear, well prioritized time managed efficiently |

### REVIEW OF REPORT

| | report summary & understanding | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few | irrelevant | no |
| 1 | partial | too short/long | some | partially relevant | almost no |
| 2 | ✓ good | relevant parts | many | mostly adequate | some |
| 3 | detailed, complex | accurate, conclusive | + improvement suggestions | fully adequate | good |

### REVIEW OF OPPOSITION

| | speech summary | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few | irrelevant | no |
| 1 | too short/long | too short/long | some | partially relevant | almost no |
| 2 | informative, apt | relevant parts | many | mostly adequate | some |
| 3 | brief but accurate | accurate, conclusive | + improvement suggestions | fully adequate | good |

### ANSWERS TO JURY QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| -1 | some incorrect, inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

NOTES:

# SCORESHEET

**stage:** 1  **fight (round no.):** PF₁  **room:** G  **problem no.:** 8  **Juror's name:** Dina Izadi

**reporter:** Ukrain  **opponent:** Serbia  **reviewer:** China  **signature:** Izadi

## REPORTER

Start from 1 and add/subtract

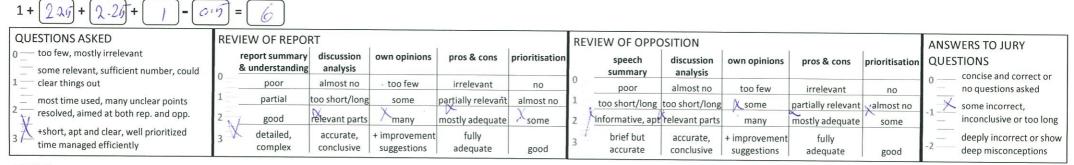$1 + \boxed{CN0} + \boxed{1N0} - \boxed{0.5} = \boxed{5}$

### REPORT

| | phenomenon explanation | theory/model | relevant experiments | comparison between theory and experiment | own contribution | task fulfilment |
|---|---|---|---|---|---|---|
| 0 | almost no | almost no | too few | no/ almost no | others' data, incorrectly cited | misunderstood |
| 1 | some | some | some | some | review of sources, cited | partly |
| 2 | fair | fair | not well fitting | not well fitting | some own input | average |
| 3 | good ✗ | good ✗ | well performed, sufficient number ✗ | deviations qualitatively analysed | some interesting results | interesting solution ✗ |
| 4 | | | | | | |
| 5 | detailed demonstrative | quite detailed, correct | + results explained errors analysed | + theory limits explained, conclusive | considerable experimental or theoretical | some aspects above average |
| 6 | deep and comprehensible, shows physical insight | detailed, complex, completely testable | + reproducible, convincing analysis | well fitting, deviations analysed, conclusive | considerable experimental and theoretical | greater extent than expected |

### DISCUSSION WITH OPPONENT

| | scientific contribution | relevant arguments/responses | efficiency |
|---|---|---|---|
| 0 | almost no ✗ | too few | almost no, chaotic |
| | only technical | some ✗ | avoided some questions |
| 1 | points cleared | | |
| 2 | some scientific points cleared | many | cooperated well ✗ |
| 3 | interesting points discussed | + data/theory convincingly supported | answered directly to most questions |
| 4 | brought in new physics | proved deep understanding | efficient, productive |

### ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| -1 | some incorrect, inconclusive or too long ✗ |
| -2 | deeply incorrect or show deep misconceptions |

NOTES:

## OPPONENT

Start from 1 and add/subtract

$1 + \boxed{0.75} + \boxed{2} + \boxed{1.75} - \boxed{0.5} = \boxed{5}$

### QUESTIONS ASKED

| | |
|---|---|
| 0 | almost no, irrelevant |
| 1 | some relevant, aimed at resolving some unclear points ✗ |
| 2 | short allowing short answers, prioritized, all time used |

### OPPOSITION (SPEECH)

| | time used | understanding of presentation | relevant topics addressed | correct own opinions expressed | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | almost nothing | no or irrelevant | almost no ✗ | no |
| 1 | very little | some main points ✗ | few ✗ | some | almost no ✗ |
| 2 | not all | main points | some | to important topics | some |
| 3 | almost all ✗ | all relevant points | many | to most topics | reasonable |
| 4 | all & efficiently | practically all points | practically all | + improvement suggestions | very good |

### DISCUSSION WITH REPORTER

| | scientific contribution | relevance of topics | own opinions presented | efficiency | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | irrelevant | very little | almost no | no |
| 1 | little ✗ | some | ✗ some | ✗ to some extent | almost no |
| 2 | partial | ✗ average | some correct | leading or cooperative | ✗ some |
| 3 | good | many | many correct | quite efficient | reasonable |
| 4 | new crucial point(s) | almost all | + improvement suggestions | very efficient | very good |

### ANSWERS TO JURY and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| -1 | ✗ some incorrect, inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

NOTES:

## REVIEWER

Start from 1 and add/subtract

$1 + \boxed{2.25} + \boxed{2.25} + \boxed{1} - \boxed{0.5} = \boxed{6}$

### QUESTIONS ASKED

| | |
|---|---|
| 0 | too few, mostly irrelevant |
| 1 | some relevant, sufficient number, could clear things out |
| 2 | most time used, many unclear points resolved, aimed at both rep. and opp. ✗ |
| 3 | +short, apt and clear, well prioritized time managed efficiently |

### REVIEW OF REPORT

| | report summary & understanding | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | - too few | irrelevant | no |
| 1 | partial | too short/long ✗ | some | partially relevant ✗ | almost no |
| 2 | good | relevant parts | many ✗ | mostly adequate | ✗ some |
| 3 | detailed, complex | accurate, conclusive | + improvement suggestions | fully adequate | good |

### REVIEW OF OPPOSITION

| | speech summary | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few | irrelevant | no |
| 1 | too short/long | too short/long | ✗ some | partially relevant | ✗ almost no |
| 2 | informative, apt ✗ | relevant parts | many | mostly adequate | some |
| 3 | brief but accurate | accurate, conclusive | + improvement suggestions | fully adequate | good |

### ANSWERS TO JURY QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| -1 | ✗ some incorrect, inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

NOTES:

# SCORESHEET

stage: 2    fight (round no.): 1    room: G    problem no.: 10    Juror's name: A. ALLINSON

reporter: Serbia    opponent: China    reviewer: Ukraine    signature: Al Alli

## REPORTER — Milena
Start from 1 and add/subtract

1 + [1·5] + [1·5] − [0] = [4]

### REPORT

|   | phenomenon explanation | theory/model | relevant experiments | comparison between theory and experiment | own contribution | task fulfilment |
|---|---|---|---|---|---|---|
| 0 | almost no | almost no | too few ✗ | no/ almost no ✗ | others' data, incorrectly cited | misunderstood |
| 1 | some ✗ | some ✗ | some ✗ | some | review of sources, cited | partly |
| 2 | fair | fair | fair | not well fitting | some own input | average |
| 3 | good | good | well performed, sufficient number | deviations qualitatively analysed | some interesting results | interesting solution |
| 4 | detailed demonstrative | quite detailed, correct | + results explained errors analysed | + theory limits explained, conclusive | considerable experimental or theoretical | some aspects above average |
| 5 |  |  |  |  |  |  |
| 6 | deep and comprehensible, shows physical insight | detailed, complex, completely testable | + reproducible, convincing analysis | well fitting, deviations analysed, conclusive | considerable experimental and theoretical | greater extent than expected |

### DISCUSSION WITH OPPONENT

|   | scientific contribution | relevant arguments/responses | efficiency |
|---|---|---|---|
| 0 | almost no | too few | almost no, chaotic |
|   | only technical | some ✗ | avoided some questions ✗ |
| 1 | points cleared |  |  |
| 2 | some scientific points cleared | many | cooperated well |
| 3 | interesting points discussed | + data/theory convincingly supported | answered directly to most questions |
| 4 | brought in new physics | proved deep understanding | efficient, productive |

### ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS

|   |   |
|---|---|
| 0 | concise and correct or no questions asked |
| −1 | some incorrect, inconclusive or too long |
| −2 | deeply incorrect or show deep misconceptions |

NOTES:

## OPPONENT — Lyu
Start from 1 and add/subtract

1 + [1·5] + [2·5] + [2·2] − [ ] = [6] 7

### QUESTIONS ASKED

| 0 | almost no, irrelevant |
|---|---|
|   | some relevant, aimed at resolving |
| 1 | some unclear points ✗ |
| 2 | short allowing short answers, prioritized, all time used |

### OPPOSITION (SPEECH)

|   | time used | understanding of presentation | relevant topics addressed | correct own opinions expressed | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | almost nothing | no or irrelevant | almost no | no |
| 1 | very little | some main points | few | some | almost no |
| 2 | not all ✓ | main points ✗ | some | to important topics ✗ | some |
| 3 | almost all | all relevant points | many ✗ | to most topics | reasonable ✗ |
| 4 | all & efficiently | practically all points | practically all | + improvement suggestions | very good |

### DISCUSSION WITH REPORTER

|   | scientific contribution | relevance of topics | own opinions presented | efficiency | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | irrelevant | very little | almost no | no |
| 1 | little | some | some ✗ | to some extent | almost no ✗ |
| 2 | partial ✗ | average | some correct ✗ | leading or cooperative | some |
| 3 | good | many | many correct | quite efficient | reasonable |
| 4 | new crucial point(s) | almost all | + improvement suggestions | very efficient | very good |

### ANSWERS TO JURY and REVIEWER'S QUESTIONS

|   |   |
|---|---|
| 0 | concise and correct or no questions asked |
| −1 | some incorrect, inconclusive or too long |
| −2 | deeply incorrect or show deep misconceptions |

NOTES:

introducing own. →

? TOO MUCH

## REVIEWER — Dmytro
Start from 1 and add/subtract

1 + [1·5] + [1] + [1·5] − [ ] = [5]

### QUESTIONS ASKED

| 0 | too few, mostly irrelevant |
|---|---|
|   | some relevant, sufficient number, could clear things out |
| 1 | most time used, many unclear points resolved, aimed at both rep. and opp. |
| 2 |  |
| 3 | +short, apt and clear, well prioritised time managed efficiently |

### REVIEW OF REPORT

|   | report summary & understanding | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few | irrelevant | no |
| 1 | partial ✗ | too short/long ✗ | some ✗ | partially relevant ✗ | almost no ✗ |
| 2 | good | relevant parts | many | mostly adequate | some |
| 3 | detailed, complex | accurate, conclusive | + improvement suggestions | fully adequate | good |

### REVIEW OF OPPOSITION

|   | speech summary | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few ✗ | irrelevant | no |
| 1 | too short/long ✗ | too short/long ✗ | some | partially relevant ✗ | almost no ✗ |
| 2 | informative, apt | relevant parts | many | mostly adequate | some |
| 3 | brief but accurate | accurate, conclusive | + improvement suggestions | fully adequate | good |

### ANSWERS TO JURY QUESTIONS

|   |   |
|---|---|
| 0 | concise and correct or no questions asked |
| −1 | some incorrect, inconclusive or too long |
| −2 | deeply incorrect or show deep misconceptions |

NOTES:

# SCORESHEET

stage: **2**    fight (round no.): **1**    room: **G**    problem no.: **10**

reporter: **Milena**    opponent: **Lyu Haubai**    reviewer: **Dima**

Juror's name: **V. Lobysheu**

signature: **Blale**

## REPORTER

Start from 1 and add/subtract

$1 + \boxed{2} + \boxed{3} - \boxed{0} = \boxed{6}$

### REPORT

| | phenomenon explanation | theory/model | relevant experiments | comparison between theory and experiment | own contribution | task fulfilment |
|---|---|---|---|---|---|---|
| 0 | | | | | | |
| 1 | almost no | almost no | too few | no/ almost no | others' data, incorrectly cited | misunderstood |
| 2 | some | some | some | some | review of sources, cited | partly |
| | fair | fair | fair | not well fitting | some own input | average |
| 3 | good | good | well performed, sufficient number | deviations qualitatively analysed | some interesting results | interesting solution |
| 4 | | | | | | |
| 5 | detailed demonstrative | quite detailed, correct | + results explained errors analysed | + theory limits explained, conclusive | considerable experimental or theoretical | some aspects above average |
| 6 | deep and comprehensible, shows physical insight | detailed, complex, completely testable | + reproducible, convincing analysis | well fitting, deviations analysed, conclusive | considerable experimental and theoretical | greater extent than expected |

### DISCUSSION WITH OPPONENT

| | scientific contribution | relevant arguments/responses | efficiency |
|---|---|---|---|
| 0 | almost no | too few | almost no, chaotic |
| | only technical | some | avoided some questions |
| 1 | points cleared | | cooperated well |
| | some scientific points cleared | many | |
| 2 | | | |
| 3 | interesting points discussed | + data/theory convincingly supported | answered directly to most questions |
| 4 | brought in new physics | proved deep understanding | efficient, productive |

### ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| -1 | some incorrect, inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

NOTES:

## OPPONENT

Start from 1 and add/subtract

$1 + \boxed{1} + \boxed{3} + \boxed{2} - \boxed{0} = \boxed{7}$

### QUESTIONS ASKED

| | |
|---|---|
| 0 | almost no, irrelevant |
| 1 | some relevant, aimed at resolving some unclear points |
| 2 | short allowing short answers, prioritized, all time used |

### OPPOSITION (SPEECH)

| | time used | understanding of presentation | relevant topics addressed | correct own opinions expressed | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | almost nothing | no or irrelevant | almost no | no |
| 1 | very little | some main points | few | some | almost no |
| 2 | not all | main points | some | to important topics | some |
| 3 | almost all | all relevant points | many | to most topics | reasonable |
| 4 | all & efficiently | practically all points | practically all | + improvement suggestions | very good |

### DISCUSSION WITH REPORTER

| | scientific contribution | relevance of topics | own opinions presented | efficiency | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | irrelevant | very little | almost no | no |
| 1 | little | some | some | to some extent | almost no |
| 2 | partial | average | some correct | leading or cooperative | some |
| 3 | good | many | many correct | quite efficient | reasonable |
| 4 | new crucial point(s) | almost all | + improvement suggestions | very efficient | very good |

### ANSWERS TO JURY and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| -1 | some incorrect, inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

NOTES:

## REVIEWER

Start from 1 and add/subtract

$1 + \boxed{1} + \boxed{3} + \boxed{3} - \boxed{0} = \boxed{8}$

### QUESTIONS ASKED

| | |
|---|---|
| 0 | too few, mostly irrelevant |
| 1 | some relevant, sufficient number, could clear things out |
| 2 | most time used, many unclear points resolved, aimed at both rep. and opp. |
| 3 | +short, apt and clear, well prioritized time managed efficiently |

### REVIEW OF REPORT

| | report summary & understanding | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few | irrelevant | no |
| 1 | partial | too short/long | some | partially relevant | almost no |
| 2 | good | relevant parts | many | mostly adequate | some |
| 3 | detailed, complex | accurate, conclusive | + improvement suggestions | fully adequate | good |

### REVIEW OF OPPOSITION

| | speech summary | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few | irrelevant | no |
| 1 | too short/long | too short/long | some | partially relevant | almost no |
| 2 | informative, apt | relevant parts | many | mostly adequate | some |
| 3 | brief but accurate | accurate, conclusive | + improvement suggestions | fully adequate | good |

### ANSWERS TO JURY QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| -1 | some incorrect, inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

NOTES:

## REPORTER

Start from 1 and add/subtract

1 + [2] + [1] − [0] = [4]

### REPORT

| | phenomenon explanation | theory/model | relevant experiments | comparison between theory and experiment | own contribution | task fulfilment |
|---|---|---|---|---|---|---|
| 0 | almost no | almost no | too few | no/ almost no | others' data, incorrectly cited | misunderstood |
| 1 | some | some | some | some | review of sources, cited | partly |
| 2 | fair | fair | fair | not well fitting *i* | some own input **X** | average • |
| 3 | good | good | well performed, sufficient number | deviations qualitatively analysed | some interesting results | interesting solution |
| 4 | detailed demonstrative | quite detailed, correct | + results explained errors analysed | + theory limits explained, conclusive | considerable experimental or theoretical | some aspects above average |
| 5 | | | | | | |
| 6 | deep and comprehensible, shows physical insight | detailed, complex, completely testable | + reproducible, convincing analysis | well fitting, deviations analysed, conclusive | considerable experimental and theoretical | greater extent than expected |

### DISCUSSION WITH OPPONENT

| | scientific contribution | relevant arguments/responses | efficiency |
|---|---|---|---|
| 0 | almost no | too few | almost no, chaotic |
| | only technical points cleared | some | avoided some questions |
| 1 | some scientific points cleared | many | cooperated well |
| 2 | | | |
| 3 | interesting points discussed | + data/theory convincingly supported | answered directly to most questions |
| 4 | brought in new physics | proved deep understanding | efficient, productive |

### ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| −1 | some incorrect, inconclusive or too long |
| −2 | deeply incorrect or show deep misconceptions |

NOTES:

## OPPONENT

Start from 1 and add/subtract    7.5 y

1 + [2] + [2.5] + [2.5] − [0] = [8]

### QUESTIONS ASKED

| | |
|---|---|
| 0 | almost no, irrelevant |
| 1 | some relevant, aimed at resolving some unclear points |
| 2 | short allowing short answers, prioritized, all time used |

### OPPOSITION (SPEECH)

| | time used | understanding of presentation | relevant topics addressed | correct own opinions expressed | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | almost nothing | no or irrelevant | almost no | no |
| 1 | very little | some main points | few | some | almost no |
| 2 | not all | main points | some | to important topics | some |
| 3 | almost all | all relevant points | many | to most topics | reasonable |
| 4 | all & efficiently | practically all points | practically all | + improvement suggestions | very good |

### DISCUSSION WITH REPORTER

| | scientific contribution | relevance of topics | own opinions presented | efficiency | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | irrelevant | very little | almost no | no |
| 1 | little | some | some | to some extent | almost no |
| 2 | partial | average | some correct | leading or cooperative | some |
| 3 | good | many | many correct | quite efficient | reasonable |
| 4 | new crucial point(s) | almost all | + improvement suggestions | very efficient | very good |

### ANSWERS TO JURY and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| −1 | some incorrect, inconclusive or too long |
| −2 | deeply incorrect or show deep misconceptions |

NOTES:

## REVIEWER

Start from 1 and add/subtract

1 + [.5] + [1] + [.5] − [.5] = [3]

### QUESTIONS ASKED

| | |
|---|---|
| 0 | too few, mostly irrelevant |
| 1 | some relevant, sufficient number, could clear things out |
| 2 | most time used, many unclear points resolved, aimed at both rep. and opp. |
| 3 | +short, apt and clear, well prioritized time managed efficiently |

### REVIEW OF REPORT

| | report summary & understanding | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few | irrelevant | no |
| 1 | partial | too short/long | some | partially relevant | almost no |
| 2 | good | relevant parts | many | mostly adequate | some |
| 3 | detailed, complex | accurate, conclusive | + improvement suggestions | fully adequate | good |

### REVIEW OF OPPOSITION

| | speech summary | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few | irrelevant | no |
| 1 | too short/long | too short/long | some | partially relevant | almost no |
| 2 | informative, apt | relevant parts | many | mostly adequate | some |
| 3 | brief but accurate | accurate, conclusive | + improvement suggestions | fully adequate | good |

### ANSWERS TO JURY QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| −1 | some incorrect, inconclusive or too long |
| −2 | deeply incorrect or show deep misconceptions |

NOTES:

# SCORESHEET

stage: 2    fight (round no.): PF₁    room: G    problem no.: 10    Juror's name: Dina Izadi

reporter: Serbia    opponent: China    reviewer: Ukrain    signature: A Izadi

## REPORTER

Start from 1 and add/subtract

$1 + \boxed{1.75} + \boxed{1.75} - \boxed{0.5} = \boxed{4}$

### REPORT

| | phenomenon explanation | theory/model | relevant experiments | comparison between theory and experiment | own contribution | task fulfilment |
|---|---|---|---|---|---|---|
| 0 | almost no | almost no | too few | no/ almost no | others' data, incorrectly cited | misunderstood |
| 1 | some | some | some | some | review of sources, cited | partly |
| 2 | fair (X) | fair | fair | not well fitting | some own input | average |
| 3 | good | good | well performed, sufficient number | deviations qualitatively analysed | some interesting results | interesting solution |
| 4 | | | | | | |
| 5 | detailed demonstrative | quite detailed, correct | + results explained errors analysed | + theory limits explained, conclusive | considerable experimental or theoretical | some aspects above average |
| 6 | deep and comprehensible, shows physical insight | detailed, complex, completely testable | + reproducible, convincing analysis | well fitting, deviations analysed, conclusive | considerable experimental and theoretical | greater extent than expected |

(X marks: phenomenon explanation fair; theory/model almost no; relevant experiments too few; comparison no/almost no and some; task fulfilment partly)

### DISCUSSION WITH OPPONENT

| | scientific contribution | relevant arguments/responses | efficiency |
|---|---|---|---|
| 0 | almost no | too few | almost no, chaotic |
| | only technical points cleared | some | avoided some questions |
| 1 | some scientific points cleared (X) | many | cooperated well (X) |
| 2 | interesting points discussed | + data/theory convincingly supported | answered directly to most questions |
| 3 | | | |
| 4 | brought in new physics | proved deep understanding | efficient, productive |

(X efficiency marked; scientific contribution between 1 and 2)

### ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| -1 | some incorrect, inconclusive or too long (X) |
| -2 | deeply incorrect or show deep misconceptions |

NOTES:

## OPPONENT

Start from 1 and add/subtract

$1 + \boxed{1.5} + \boxed{3.5} + \boxed{2} - \boxed{\phantom{0}} = \boxed{8}$

### QUESTIONS ASKED

| | |
|---|---|
| 0 | almost no, irrelevant |
| 1 | some relevant, aimed at resolving some unclear points |
| 2 | short allowing short answers, prioritized, all time used (X) |

### OPPOSITION (SPEECH)

| | time used | understanding of presentation | relevant topics addressed | correct own opinions expressed | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | almost nothing | no or irrelevant | almost no | no |
| 1 | very little | some main points | few | some | almost no |
| 2 | not all | main points | some | to important topics | some |
| 3 | almost all (X) | all relevant points | many (X) | to most topics (X) | reasonable |
| 4 | all & efficiently | practically all points | practically all | + improvement suggestions | very good (X) |

### DISCUSSION WITH REPORTER

| | scientific contribution | relevance of topics | own opinions presented | efficiency | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | irrelevant | very little | almost no | no |
| 1 | little | some | some | to some extent | almost no |
| 2 | partial | average | some correct | leading or cooperative | some |
| 3 | good (X) | many (X) | many correct (X) | quite efficient (X) | reasonable (X) |
| 4 | new crucial point(s) | almost all | + improvement suggestions | very efficient | very good |

### ANSWERS TO JURY and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| -1 | some incorrect, inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

NOTES:

## REVIEWER

Start from 1 and add/subtract

$1 + \boxed{1.5} + \boxed{1.75} + \boxed{0.75} - \boxed{\phantom{0}} = \boxed{5}$

### QUESTIONS ASKED

| | |
|---|---|
| 0 | too few, mostly irrelevant |
| 1 | some relevant, sufficient number, could clear things out |
| 2 | most time used, many unclear points resolved, aimed at both rep. and opp. (X) |
| 3 | +short, apt and clear, well prioritized time managed efficiently |

### REVIEW OF REPORT

| | report summary & understanding | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few | irrelevant | no |
| 1 | partial (X) | too short/long | some (X) | partially relevant | almost no, |
| 2 | good | relevant parts | many | mostly adequate | some (X) |
| 3 | detailed, complex | accurate, conclusive | + improvement suggestions | fully adequate | good |

### REVIEW OF OPPOSITION

| | speech summary | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor (X) | almost no | too few (X) | irrelevant | no |
| 1 | too short/long | too short/long | some | partially relevant (X) | almost no (X) |
| 2 | informative, apt | relevant parts | many | mostly adequate | some |
| 3 | brief but accurate | accurate, conclusive | + improvement suggestions | fully adequate | good |

### ANSWERS TO JURY QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked (X) |
| -1 | some incorrect, inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

NOTES:

# SCORESHEET

stage: ½2  fight (round no.): 1  room: K  problem no.: ___  Juror's name: Narit

reporter: Serbia  opponent: China  reviewer: Ukraine  signature: [signature]

## REPORTER

1 + [2.9] + [1.2] − [0.3] = [4.8]  ≈ 5.

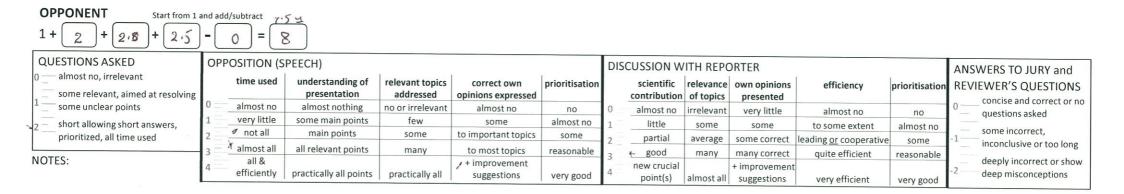### REPORT

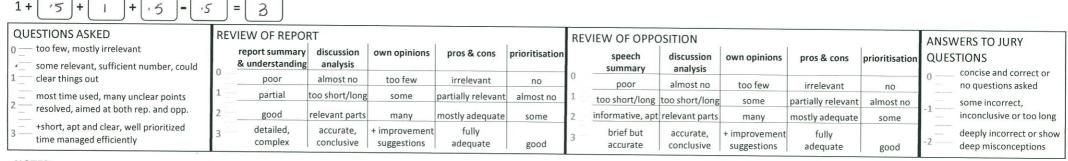| | phenomenon explanation | theory/model | relevant experiments | comparison between theory and experiment | own contribution | task fulfilment |
|---|---|---|---|---|---|---|
| 0 | almost no | almost no | too few | no/ almost no | others' data, incorrectly cited | misunderstood |
| 1 | some | some | some | some | review of sources, cited | partly |
| 2 | fair | fair | fair | not well fitting | some own input | average |
| 3 | good | good | well performed, sufficient number | deviations qualitatively analysed | some interesting results | interesting solution |
| 4 | | | | | | |
| 5 | detailed demonstrative | quite detailed, correct | + results explained errors analysed | + theory limits explained, conclusive | considerable experimental or theoretical | some aspects above average |
| 6 | deep and comprehensible, shows physical insight | detailed, complex, completely testable | + reproducible, convincing analysis | well fitting, deviations analysed, conclusive | considerable experimental and theoretical | greater extent than expected |

NOTES: Milena

### DISCUSSION WITH OPPONENT

| | scientific contribution | relevant arguments/responses | efficiency |
|---|---|---|---|
| 0 | almost no | too few | almost no, chaotic |
| 1 | only technical points cleared | some | avoided some questions |
| | some scientific points cleared | many | cooperated well |
| 2 | interesting points discussed | + data/theory convincingly supported | answered directly to most questions |
| 3 | | | |
| 4 | brought in new physics | proved deep understanding | efficient, productive |

### ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| −1 | some incorrect, inconclusive or too long |
| −2 | deeply incorrect or show deep misconceptions |

## OPPONENT

1 + [1.6] + [2.5] + [2.4] − [0.3] = [7.2]  ≈ 7.

### QUESTIONS ASKED

| | |
|---|---|
| 0 | almost no, irrelevant |
| | some relevant, aimed at resolving |
| 1 | some unclear points |
| 2 | short allowing short answers, prioritized, all time used |

NOTES: Hanbai

### OPPOSITION (SPEECH)

| | time used | understanding of presentation | relevant topics addressed | correct own opinions expressed | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | almost nothing | no or irrelevant | almost no | no |
| 1 | very little | some main points | few | some | almost no |
| 2 | not all | main points | some | to important topics | some |
| 3 | almost all | all relevant points | many | to most topics | reasonable |
| 4 | all & efficiently | practically all points | practically all | + improvement suggestions | very good |

### DISCUSSION WITH REPORTER

| | scientific contribution | relevance of topics | own opinions presented | efficiency | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | irrelevant | very little | almost no | no |
| 1 | little | some | some | to some extent | almost no |
| 2 | partial | average | some correct | leading or cooperative | some |
| 3 | good | many | many correct | quite efficient | reasonable |
| 4 | new crucial point(s) | almost all | + improvement suggestions | very efficient | very good |

### ANSWERS TO JURY and REVIEWER'S QUESTIONS

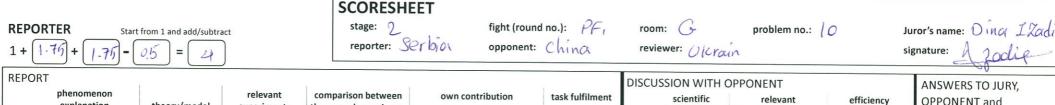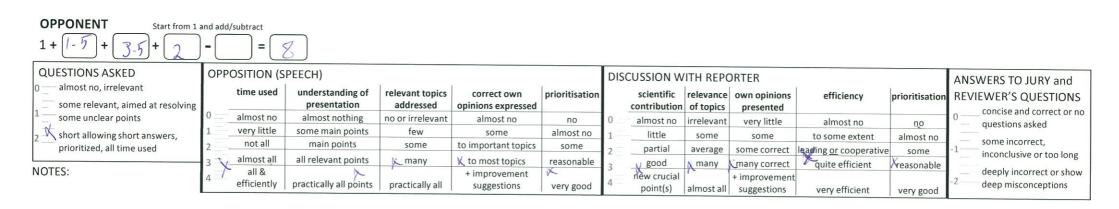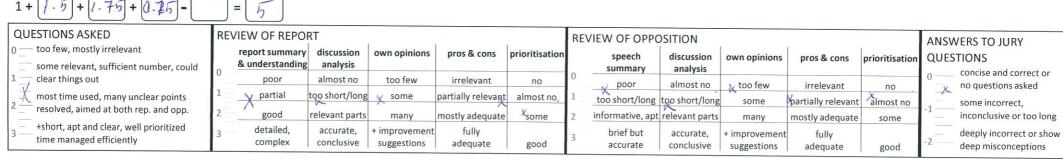| | |
|---|---|
| 0 | concise and correct or no questions asked |
| −1 | some incorrect, inconclusive or too long |
| −2 | deeply incorrect or show deep misconceptions |

## REVIEWER

1 + [1.4] + [1.5] + [1.4] − [0.4] = [4.9]  ≈ 5

### QUESTIONS ASKED

| | |
|---|---|
| 0 | too few, mostly irrelevant |
| | some relevant, sufficient number, could clear things out |
| 1 | |
| 2 | most time used, many unclear points resolved, aimed at both rep. and opp. |
| 3 | +short, apt and clear, well prioritized time managed efficiently |

NOTES: Dima.

### REVIEW OF REPORT

| | report summary & understanding | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few | irrelevant | no |
| 1 | partial | too short/long | some | partially relevant | almost no |
| 2 | good | relevant parts | many | mostly adequate | some |
| 3 | detailed, complex | accurate, conclusive | + improvement suggestions | fully adequate | good |

### REVIEW OF OPPOSITION

| | speech summary | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few | irrelevant | no |
| 1 | too short/long | too short/long | some | partially relevant | almost no |
| 2 | informative, apt | relevant parts | many | mostly adequate | some |
| 3 | brief but accurate | accurate, conclusive | + improvement suggestions | fully adequate | good |

### ANSWERS TO JURY QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| −1 | some incorrect, inconclusive or too long |
| −2 | deeply incorrect or show deep misconceptions |

## REPORTER

Start from 1 and add/subtract

1 + [4] + [3] − [0] = [8]

### REPORT

| | phenomenon explanation | theory/model | relevant experiments | comparison between theory and experiment | own contribution | task fulfilment |
|---|---|---|---|---|---|---|
| 0 | almost no | almost no | too few | no/ almost no | others' data, incorrectly cited | misunderstood |
| 1 | some | some | some | some | review of sources, cited | partly |
| 2 | fair | fair | fair | not well fitting | some own input | average |
| 3 | good | good | well performed, sufficient number | deviations qualitatively analysed | some interesting results | interesting solution |
| 4/5 | detailed demonstrative | quite detailed, correct | + results explained errors analysed | + theory limits explained, conclusive | considerable experimental or theoretical | some aspects above average |
| 6 | deep and comprehensible, shows physical insight | detailed, complex, completely testable | + reproducible, convincing analysis | well fitting, deviations analysed, conclusive | considerable experimental and theoretical | greater extent than expected |

### DISCUSSION WITH OPPONENT

| | scientific contribution | relevant arguments/responses | efficiency |
|---|---|---|---|
| 0 | almost no | too few | almost no, chaotic |
| | only technical points cleared | some | avoided some questions |
| 1 | some scientific points cleared | many | cooperated well |
| 2 | interesting points discussed | + data/theory convincingly supported | answered directly to most questions |
| 3 | | | |
| 4 | brought in new physics | proved deep understanding | efficient, productive |

### ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| −1 | some incorrect, inconclusive or too long |
| −2 | deeply incorrect or show deep misconceptions |

NOTES:

## OPPONENT

Start from 1 and add/subtract

1 + [1] + [8] + [2] − [0] = [6]

### QUESTIONS ASKED

| | |
|---|---|
| 0 | almost no, irrelevant |
| 1 | some relevant, aimed at resolving some unclear points |
| 2 | short allowing short answers, prioritized, all time used |

### OPPOSITION (SPEECH)

| | time used | understanding of presentation | relevant topics addressed | correct own opinions expressed | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | almost nothing | no or irrelevant | almost no | no |
| 1 | very little | some main points | few | some | almost no |
| 2 | not all | main points | some | to important topics | some |
| 3 | almost all | all relevant points | many | to most topics | reasonable |
| 4 | all & efficiently | practically all points | practically all | + improvement suggestions | very good |

### DISCUSSION WITH REPORTER

| | scientific contribution | relevance of topics | own opinions presented | efficiency | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | irrelevant | very little | almost no | no |
| 1 | little | some | some | to some extent | almost no |
| 2 | partial | average | some correct | leading or cooperative | some |
| 3 | good | many | many correct | quite efficient | reasonable |
| 4 | new crucial point(s) | almost all | + improvement suggestions | very efficient | very good |

### ANSWERS TO JURY and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| −1 | some incorrect, inconclusive or too long |
| −2 | deeply incorrect or show deep misconceptions |

NOTES:

## REVIEWER

Start from 1 and add/subtract

1 + [0] + [2] + [2] − [0] = [5]

### QUESTIONS ASKED

| | |
|---|---|
| 0 | too few, mostly irrelevant |
| 1 | some relevant, sufficient number, could clear things out |
| 2 | most time used, many unclear points resolved, aimed at both rep. and opp. |
| 3 | +short, apt and clear, well prioritized time managed efficiently |

### REVIEW OF REPORT

| | report summary & understanding | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few | irrelevant | no |
| 1 | partial | too short/long | some | partially relevant | almost no |
| 2 | good | relevant parts | many | mostly adequate | some |
| 3 | detailed, complex | accurate, conclusive | + improvement suggestions | fully adequate | good |

### REVIEW OF OPPOSITION

| | speech summary | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few | irrelevant | no |
| 1 | too short/long | too short/long | some | partially relevant | almost no |
| 2 | informative, apt | relevant parts | many | mostly adequate | some |
| 3 | brief but accurate | accurate, conclusive | + improvement suggestions | fully adequate | good |

### ANSWERS TO JURY QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| −1 | some incorrect, inconclusive or too long |
| −2 | deeply incorrect or show deep misconceptions |

NOTES:

# SCORESHEET

| | |
|---|---|
| stage: **3** | fight (round no.): **1** | room: **G** | problem no.: **17** |
| reporter: **China** | opponent: **Ukraine** | reviewer: **Serbia** |

Juror's name: *Tavila Tilu*
signature: *[signature]*

## REPORTER

Start from 1 and add/subtract

$1 + \boxed{5.5} + \boxed{3} - \boxed{0} = \boxed{9.5} 10.$

### REPORT

| | phenomenon explanation | theory/model | relevant experiments | comparison between theory and experiment | own contribution | task fulfilment |
|---|---|---|---|---|---|---|
| 0 | almost no | almost no | too few | no/ almost no | others' data, incorrectly cited | misunderstood |
| 1 | some | some | some | some | review of sources, cited | partly |
| 2 | fair | fair | fair | not well fitting | some own input | average |
| 3 | good | good | well performed, sufficient number | deviations qualitatively analysed | some interesting results | interesting solution |
| 4 | | | | | | |
| 5 | detailed demonstrative | quite detailed, correct | + results explained errors analysed | + theory limits explained, conclusive | considerable experimental or theoretical | some aspects above average |
| 6 | deep and comprehensible, shows physical insight | detailed, complex, completely testable | + reproducible, convincing analysis | well fitting, deviations analysed, conclusive | considerable experimental and theoretical | greater extent than expected |

### DISCUSSION WITH OPPONENT

| | scientific contribution | relevant arguments/responses | efficiency |
|---|---|---|---|
| 0 | almost no | too few | almost no, chaotic |
| | only technical | some | avoided some questions |
| 1 | points cleared | | cooperated well |
| 2 | some scientific points cleared | many | |
| 3 | interesting points discussed | + data/theory convincingly supported | answered directly to most questions |
| 4 | brought in new physics | proved deep understanding | efficient, productive |

### ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| -1 | some incorrect, inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

NOTES:

## OPPONENT

Start from 1 and add/subtract

$1 + \boxed{1.5} + \boxed{1.5} + \boxed{1.5} - \boxed{0} = \boxed{5.5} 6$

### QUESTIONS ASKED

| | |
|---|---|
| 0 | almost no, irrelevant |
| 1 | some relevant, aimed at resolving some unclear points |
| 2 | short allowing short answers, prioritized, all time used |

### OPPOSITION (SPEECH)

| | time used | understanding of presentation | relevant topics addressed | correct own opinions expressed | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | almost nothing | no or irrelevant | almost no | no |
| 1 | very little | some main points | few | some | almost no |
| 2 | not all | main points | some | to important topics | some |
| 3 | almost all | all relevant points | many | to most topics | reasonable |
| 4 | all & efficiently | practically all points | practically all | + improvement suggestions | very good |

### DISCUSSION WITH REPORTER

| | scientific contribution | relevance of topics | own opinions presented | efficiency | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | irrelevant | very little | almost no | no |
| 1 | little | some | some | to some extent | almost no |
| 2 | partial | average | some correct | leading or cooperative | some |
| 3 | good | many | many correct | quite efficient | reasonable |
| 4 | new crucial point(s) | almost all | + improvement suggestions | very efficient | very good |

### ANSWERS TO JURY and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| -1 | some incorrect, inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

NOTES:

## REVIEWER

Start from 1 and add/subtract

$1 + \boxed{1.5} + \boxed{1} + \boxed{1.5} - \boxed{0} = \boxed{5}$

### QUESTIONS ASKED

| | |
|---|---|
| 0 | too few, mostly irrelevant |
| 1 | some relevant, sufficient number, could clear things out |
| 2 | most time used, many unclear points resolved, aimed at both rep. and opp. |
| 3 | +short, apt and clear, well prioritized time managed efficiently |

### REVIEW OF REPORT

| | report summary & understanding | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few | irrelevant | no |
| 1 | partial | too short/long | some | partially relevant | almost no |
| 2 | good | relevant parts | many | mostly adequate | some |
| 3 | detailed, complex | accurate, conclusive | + improvement suggestions | fully adequate | good |

### REVIEW OF OPPOSITION

| | speech summary | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few | irrelevant | no |
| 1 | too short/long | too short/long | some | partially relevant | almost no |
| 2 | informative, apt | relevant parts | many | mostly adequate | some |
| 3 | brief but accurate | accurate, conclusive | + improvement suggestions | fully adequate | good |

### ANSWERS TO JURY QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| -1 | some incorrect, inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

NOTES:

# SCORESHEET

stage: **3**  fight (round no.): **PF₁**  room: **G**  problem no.: **17**  Juror's name: **Dina Izadi**

reporter: **China**  opponent: **Ukrain**  reviewer: **Serbia**  signature: *Izadi*

## REPORTER

Start from 1 and add/subtract

$1 + [4] + [2.5] - [0.5] = [7]$

### REPORT

| | phenomenon explanation | theory/model | relevant experiments | comparison between theory and experiment | own contribution | task fulfilment |
|---|---|---|---|---|---|---|
| 0 | almost no | almost no | too few | no/ almost no | others' data, incorrectly cited | misunderstood |
| 1 | some | some | some | some | review of sources, cited | partly |
| 2 | fair | fair | fair | not well fitting | ✓ some own input · | ✓ average |
| 3 | good | good | ✓ well performed, sufficient number | ✗ deviations qualitatively analysed | some interesting results | interesting solution |
| 4 | | | | | ✗ considerable experimental or theoretical | ✗ some aspects above average |
| 5 | detailed demonstrative | quite detailed, correct | + results explained errors analysed | + theory limits explained, conclusive | | greater extent |
| 6 | deep and comprehensible, shows physical insight | detailed, complex, completely testable | + reproducible, convincing analysis | well fitting, deviations analysed, conclusive | considerable experimental and theoretical | greater extent than expected |

### DISCUSSION WITH OPPONENT

| | scientific contribution | relevant arguments/responses | efficiency |
|---|---|---|---|
| 0 | almost no | too few | almost no, chaotic |
| | only technical | some | avoided some questions |
| 1 | points cleared | | cooperated well |
| 2 | some scientific ✓ points cleared | many | ✗ answered directly to most questions |
| 3 | interesting points discussed | + data/theory convincingly supported | |
| 4 | brought in new physics | proved deep understanding | efficient, productive |

### ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| -1 | some incorrect, inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

NOTES: it was read from the notes on laptop? So he was not ready completely to present his project

## OPPONENT

Start from 1 and add/subtract

$1 + [0.5] + [1.5] + [1.5] - [0.5] = [4]$

### QUESTIONS ASKED

| | |
|---|---|
| 0 | almost no, irrelevant |
| 1 | ✗ some relevant, aimed at resolving some unclear points |
| 2 | short allowing short answers, prioritized, all time used |

### OPPOSITION (SPEECH)

| | time used | understanding of presentation | relevant topics addressed | correct own opinions expressed | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | almost nothing | no or irrelevant | almost no ✗ | no |
| 1 | very little | some main points ✓ | few ✗ | some · | ✗ almost no |
| 2 | not all | main points | some | to important topics | some |
| 3 | ✗ almost all | all relevant points | many | to most topics | reasonable |
| 4 | all & efficiently | practically all points | practically all | + improvement suggestions | very good |

### DISCUSSION WITH REPORTER

| | scientific contribution | relevance of topics | own opinions presented | efficiency | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | irrelevant | ✗ very little | ✗ almost no | no |
| 1 | ✗ little | ✗ some | some | to some extent | ✗ almost no |
| 2 | partial | average | some correct | leading or cooperative | some |
| 3 | good | many | many correct | quite efficient | reasonable |
| 4 | new crucial point(s) | almost all | + improvement suggestions | very efficient | very good |

### ANSWERS TO JURY and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| -1 | some incorrect, inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

NOTES:

## REVIEWER

Start from 1 and add/subtract

$1 + [0.75] + [0.75] + [0.5] - [\text{crossed out}] = [3]$

### QUESTIONS ASKED

| | |
|---|---|
| 0 | ✗ too few, mostly irrelevant |
| 1 | some relevant, sufficient number, could clear things out |
| 2 | most time used, many unclear points resolved, aimed at both rep. and opp. |
| 3 | +short, apt and clear, well prioritized time managed efficiently |

### REVIEW OF REPORT

| | report summary & understanding | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | ✗ poor | ✗ almost no | ✗ too few | ✗ irrelevant | ✗ no |
| 1 | partial | too short/long | some | partially relevant | almost no |
| 2 | good | relevant parts | many | mostly adequate | some |
| 3 | detailed, complex | accurate, conclusive | + improvement suggestions | fully adequate | good |

### REVIEW OF OPPOSITION

| | speech summary | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | ✗ poor | ✗ almost no | ✗ too few | ✗ irrelevant | ✗ no |
| 1 | too short/long | too short/long | some | partially relevant | almost no |
| 2 | informative, apt | relevant parts | many | mostly adequate | some |
| 3 | brief but accurate | accurate, conclusive | + improvement suggestions | fully adequate | good |

### ANSWERS TO JURY QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| -1 | some incorrect, inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

NOTES:

# SCORESHEET

stage: **3**  fight (round no.): **1**  room: **G**  problem no.: **17**  Juror's name: **A. ALLINSON**

reporter: **China**  opponent: **UKRAINE**  reviewer: **SERBIA**  signature: _(signed)_
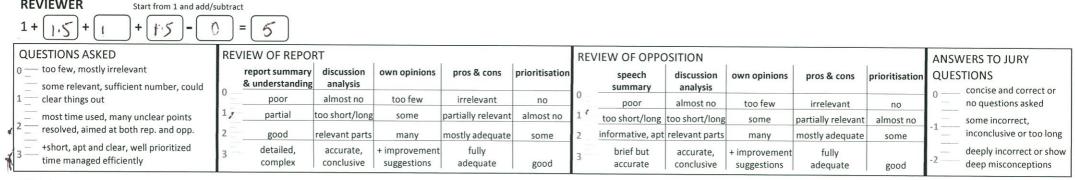
## REPORTER

1 + [4] + [3] − [0] = [8]

### REPORT

| | phenomenon explanation | theory/model | relevant experiments | comparison between theory and experiment | own contribution | task fulfilment |
|---|---|---|---|---|---|---|
| 0 | almost no | almost no | too few | no/ almost no | others' data, incorrectly cited | misunderstood |
| 1 | some | some | some | some | review of sources, cited | partly |
| 2 | fair | fair | fair ✓ | not well fitting | some own input | average |
| 3 | good ✓ | good ✓ | well performed, sufficient number | deviations qualitatively analysed ✓ | some interesting results ✓ | interesting solution ✓ |
| 4 | detailed demonstrative | quite detailed, correct | + results explained errors analysed | + theory limits ✓ explained, conclusive | considerable experimental or theoretical ✓ | some aspects above average |
| 6 | deep and comprehensible, shows physical insight | detailed, complex, completely testable | + reproducible, convincing analysis | well fitting, deviations analysed, conclusive | considerable experimental and theoretical | greater extent than expected |

NOTES: _more data_

### DISCUSSION WITH OPPONENT

| | scientific contribution | relevant arguments/responses | efficiency |
|---|---|---|---|
| 0 | almost no | too few | almost no, chaotic |
| | only technical | some | avoided some questions |
| 1 | points cleared | | cooperated well |
| 2 | some scientific points cleared | many | |
| 3 | interesting points discussed | + data/theory ✓ convincingly supported | answered directly to most questions |
| 4 | brought in new physics | proved deep understanding | efficient, productive |

### ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS

| | |
|---|---|
| ⓪ | concise and correct or no questions asked |
| −1 | some incorrect, inconclusive or too long |
| −2 | deeply incorrect or show deep misconceptions |

_Did they really maximise?_
_trends for parameters alone but stated not independent_

## OPPONENT

1 + [2.5] + [2] + [1.5] − [0] = [7]

### QUESTIONS ASKED

| | |
|---|---|
| 0 | almost no, irrelevant |
| 1 | some relevant, aimed at resolving some unclear points |
| 2 | short allowing short answers, prioritized, all time used |

NOTES:

### OPPOSITION (SPEECH)

| | time used | understanding of presentation | relevant topics addressed | correct own opinions expressed | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | almost nothing | no or irrelevant | almost no | no |
| 1 | very little | some main points | few | some | almost no |
| 2 | not all ✓ | main points ✓ | some ✓ | to important topics ✓ | some ✓ |
| 3 | almost all | all relevant points | many | to most topics | reasonable |
| 4 | all & efficiently | practically all points | practically all | + improvement suggestions | very good |

### DISCUSSION WITH REPORTER

| | scientific contribution | relevance of topics | own opinions presented | efficiency | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | irrelevant | very little | almost no | no |
| 1 | little | some | some ✓ | to some extent ✓ | almost no |
| 2 | partial ✓ | average ✓ | some correct | leading or cooperative ✓ | some |
| 3 | good | many ✓ | many correct | quite efficient | reasonable |
| 4 | new crucial point(s) | almost all | + improvement suggestions | very efficient | very good |

### ANSWERS TO JURY and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 | concise and correct or no questions asked |
| −1 | some incorrect, inconclusive or too long |
| −2 | deeply incorrect or show deep misconceptions |

## REVIEWER

1 + [2] + [1.5] + [0.5] − [0] = [6]

### QUESTIONS ASKED

| | |
|---|---|
| 0 | too few, mostly irrelevant |
| 1 | some relevant, sufficient number, could clear things out |
| 2 | most time used, many unclear points resolved, aimed at both rep. and opp. |
| 3 | +short, apt and clear, well prioritized time managed efficiently ? |

NOTES:

### REVIEW OF REPORT

| | report summary & understanding | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few | irrelevant | no |
| 1 | partial | too short/long | some ✓ | partially relevant | almost no ✓ |
| 2 | good | relevant parts | many | mostly adequate | some |
| 3 | detailed, complex | accurate, conclusive | + improvement suggestions | fully adequate | good |

### REVIEW OF OPPOSITION

| | speech summary | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | too few ✓ | irrelevant | no |
| 1 | too short/long | too short/long | some ✓ | partially relevant | almost no |
| 2 | informative, apt | relevant parts | many | mostly adequate | some |
| 3 | brief but accurate | accurate, conclusive | + improvement suggestions | fully adequate | good |

### ANSWERS TO JURY QUESTIONS

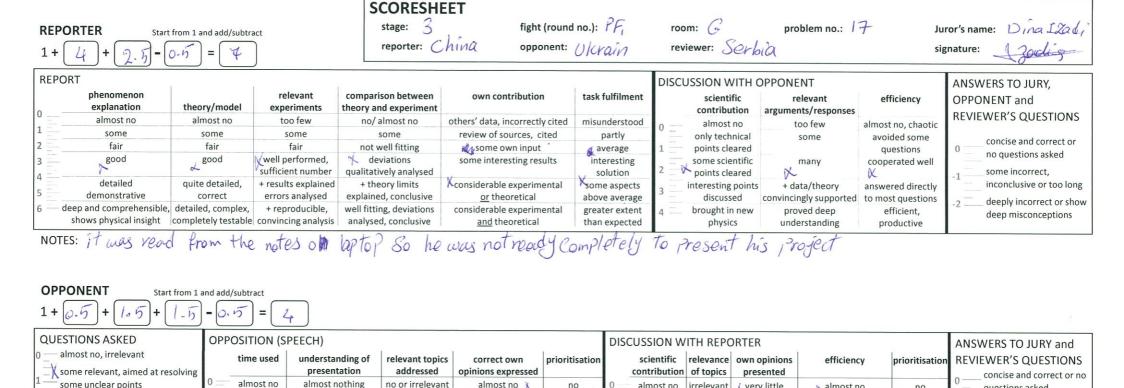| | |
|---|---|
| 0 | concise and correct or no questions asked |
| −1 | some incorrect, inconclusive or too long |
| −2 | deeply incorrect or show deep misconceptions |

NOTES: _sliding µ? rolling_

## REPORTER

Start from 1 and add/subtract

$1 + \boxed{4.0} + \boxed{2.5} - \boxed{0.1} = \boxed{7.4} \approx \boxed{7}$

### REPORT

| | phenomenon explanation | theory/model | relevant experiments | comparison between theory and experiment | own contribution | task fulfilment |
|---|---|---|---|---|---|---|
| 0 | almost no | almost no | too few | no/ almost no | others' data, incorrectly cited | misunderstood |
| 1 | some | some | some | some | review of sources, cited | partly |
| 2 | fair | fair | fair | not well fitting | some own input | average |
| 3 | ~~good~~ | ~~good~~ | well performed, sufficient number | deviations qualitatively analysed | some interesting results | interesting solution |
| 4 | detailed demonstrative | quite detailed, correct | + results explained errors analysed | + theory limits explained, conclusive | ~~considerable experimental or theoretical~~ | some aspects above average |
| 5 | | | | | | |
| 6 | deep and comprehensible, shows physical insight | detailed, complex, completely testable | + reproducible, convincing analysis | well fitting, deviations analysed, conclusive | considerable experimental and theoretical | greater extent than expected |

### DISCUSSION WITH OPPONENT

| | scientific contribution | relevant arguments/responses | efficiency |
|---|---|---|---|
| 0 | almost no | too few | almost no, chaotic |
| | only technical | some | avoided some questions |
| 1 | points cleared | | cooperated well |
| 2 | ~~some scientific points cleared~~ | ~~many~~ | |
| 3 | interesting points discussed | + data/theory convincingly supported | ~~answered directly to most questions~~ |
| 4 | brought in new physics | proved deep understanding | efficient, productive |

### ANSWERS TO JURY, OPPONENT and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 ✗ | concise and correct or no questions asked |
| -1 | some incorrect, inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

NOTES: Hanbai.

---

## OPPONENT

Start from 1 and add/subtract

$1 + \boxed{0.6} + \boxed{1.2} + \boxed{1.1} - \boxed{0} = \boxed{3.9} \approx \boxed{4}$

### QUESTIONS ASKED

| | |
|---|---|
| 0 ✗ | almost no, irrelevant |
| 1 | some relevant, aimed at resolving some unclear points |
| 2 | short allowing short answers, prioritized, all time used |

### OPPOSITION (SPEECH)

| | time used | understanding of presentation | relevant topics addressed | correct own opinions expressed | prioritisation |
|---|---|---|---|---|---|
| 0 | ~~almost no~~ | almost nothing | no or irrelevant | ~~almost no~~ | no |
| 1 | very little | some main points | few | ~~some~~ | ~~almost no~~ |
| 2 | not all | ~~main points~~ | some | to important topics | ~~some~~ |
| 3 | almost all | all relevant points | many | to most topics | reasonable |
| 4 | all & efficiently | practically all points | practically all | + improvement suggestions | very good |

### DISCUSSION WITH REPORTER

| | scientific contribution | relevance of topics | own opinions presented | efficiency | prioritisation |
|---|---|---|---|---|---|
| 0 | almost no | irrelevant | very little | almost no | no |
| 1 | little | ~~some~~ | ~~some~~ | to some extent | almost no |
| 2 | ~~partial~~ | average | some correct | leading or cooperative | ~~some~~ |
| 3 | good | many | many correct | quite efficient | reasonable |
| 4 | new crucial point(s) | almost all | + improvement suggestions | very efficient | very good |

### ANSWERS TO JURY and REVIEWER'S QUESTIONS

| | |
|---|---|
| 0 ✗ | concise and correct or no questions asked |
| -1 | some incorrect, inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

NOTES: Dima

---

## REVIEWER

Start from 1 and add/subtract

$1 + \boxed{0.7} + \boxed{1.1} + \boxed{1.1} - \boxed{0} = \boxed{3.9} \approx \boxed{4}$

### QUESTIONS ASKED

| | |
|---|---|
| 0 ✗ | too few, mostly irrelevant |
| 1 | some relevant, sufficient number, could clear things out |
| 2 | most time used, many unclear points resolved, aimed at both rep. and opp. |
| 3 | +short, apt and clear, well prioritized time managed efficiently |

### REVIEW OF REPORT

| | report summary & understanding | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | ~~too few~~ | irrelevant | no |
| 1 | ~~partial~~ | too short/long | ~~some~~ | partially relevant | ~~almost no~~ |
| 2 | good | relevant parts | many | mostly adequate | ~~some~~ |
| 3 | detailed, complex | accurate, conclusive | + improvement suggestions | fully adequate | good |

### REVIEW OF OPPOSITION

| | speech summary | discussion analysis | own opinions | pros & cons | prioritisation |
|---|---|---|---|---|---|
| 0 | poor | almost no | ~~too few~~ | irrelevant | no |
| 1 | too short/long | too short/long | ~~some~~ | partially relevant | ~~almost no~~ |
| 2 | informative, apt | relevant parts | many | mostly adequate | ~~some~~ |
| 3 | brief but accurate | accurate, conclusive | + improvement suggestions | fully adequate | good |

### ANSWERS TO JURY QUESTIONS

| | |
|---|---|
| 0 ✗ | concise and correct or no questions asked |
| -1 | some incorrect, inconclusive or too long |
| -2 | deeply incorrect or show deep misconceptions |

NOTES:

| Juror | | Stage 1 | | | Stage 2 | | | Stage 3 | | | Stage 4 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Team** | | Ukraine | Serbia | China | Serbia | China | Ukraine | China | Ukraine | Serbia | | | |
| | | Rep | Opp | Rev | Rep | Opp | Rev | Rep | Opp | Rev | Rep | Opp | Rev |
| Alan Allinson | | 5 | 5 5 | 7 | 4 | 7 | 5 | 8 | 7 | 6 | | | |
| Dina Izadi | | 5 | 5 5 | 6 | 4 | 8 | 5 | 7 | 4 | 3 | | | |
| Farida Tahir | | 5 | 5 6 | 7 | 4 | 8 | 3 | 10 | 6 | 5 | | | |
| Navit Triannak | | 5 | 5 6 | 8 | 5 | 7 | 5 | 7 | 4 | 4 | | | |
| Valentin Lobyshev | | 6 | 6 6 | 7 | 6 | 7 | 8 | 8 | 6 | 5 | | | |
| **Acting Team Member** | | Mariia Kovalenko | Milena Simić | Ruyi Ding | Milena Simić | Hanbai Lyu | ~~Dmytro Tvardovskyi~~ Dmytro Tvardovskyi | Hanbai Lyu | Dmytro Tvardovskyi | Luka Lazarević | | | |
| **Rejected Problems** | | 8. Visualising Density | | | 10. Pulling glasses apart | | | 17. Vacuum Bazooka | | | | | |
| **Accepted Problem** | | 1 | | | | | | 1 | | | | | |

Signature Fight Assistant: ...................

Double-checked with Scoring Guidelines by second Fight Assistant (signature): ..................