

Physics Challenges for Teachers and Students

A Worldwide Problem-Solving Contest



► The Invasion of the Space Tetrahedrons (Mr2)

Four charged particles (A, B, C, D), of mass m and charge q each, are connected by light silk threads of length d forming a tetrahedron floating in outer space. The thread connecting particles A and B suddenly snaps. Find the maximum speed of particle A after that.

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Submission Guidelines:

The deadline for submitting solutions to this problem is March 28, 2005.

- only email submissions will be considered;
- email your solutions to Boris Korsunsky at korsunbo@post.harvard.edu;
- please email the solutions as Word files;
- please email *each solution* as a separate file;
- note that each problem, in addition to a very clever title, has a code such as Mr1. Please name each file as “problem code-first initial-last name.” For instance, “Mr1DVader” if your name is Darth Vader and you are sending the solution to problem Mr1;
- please state your name, hometown, and professional affiliation in each file.

We look forward to your (and your students’) participation.

Please send correspondence to:

Boris Korsunsky
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The next *Challenge* problem will be posted online March 21.