**Check One: ☐Project ☐Review ☐Collaboration**

 **X Workshop ☐Other**

| **Descriptive Title** | Tribocharging of particulate materials |
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| **Working Title[[1]](#footnote-0)** | Tribocharging |
| **Technical Area[[2]](#footnote-1)** | Dry, Formation, Size Reduction |
| **Date** | 6/17/25 |
| **Short Description** | Many implications of triboelectric charging are well-known (even if the mechanisms aren’t), yet triboelectric effects on particle process operation continue to be a problem for industry. To what extent is this situation due to a lack of training, as opposed to a lack of fundamental knowledge? The proposed workshop would explore questions of how to address both aspects of this problem.Presentation from Scott Waitukaitis at this AGM with a forthcoming review on the state-of-the-art in electrostatics will provide a groundwork for the workshop. |
| **Objectives** | * Describe mechanisms of charging and discharging of particles in process (formation, transport, discharge, filling, etc)
* To provide a basic primer on effective countermeasures industrialists can take to avoid triboelectric problems
* Measurement techniques, application and industrial practicality
* To survey IFPRI members to assess how well this basic toolbox has been assimilated in their companies
* To identify generic industrial problems that do not appear to be addressed by the existing toolbox (Essentially, to address the question of, what additional tools are needed?)
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| **Scope** | Powders and granular material that charge during particle formation, size reduction and transport/conveying. |

| **Recommended Contractors (2 or 3)** |
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Academics that could participate:

* Alberto Derenzo – Italy
* Poupak Mehrani – Ottowa

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Topics

* Large scale measurements of charge – safety
* The plant calls and says “it’s electrostatics problem”, how do I know if it’s an electrostatics problem or is it just some other problem of the day.
1. Title used in meeting agendas and file archives [↑](#footnote-ref-0)
2. One or more from the following list: W = wet systems; D = dry systems; F = particle formation; SR = size reduction; M = modeling; SE = systems engineering [↑](#footnote-ref-1)