

# Assigning Authorship on Publications

*Bruce Alphenaar, Chair ECE*

## Authorship assignment guidelines vary between institutions and disciplines...

### **Magnetic-field dependence of the quantum-Hall-liquid–insulator transition**

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We present measurements of the magnetic field dependence of the insulator transition in a gated  $\text{Al}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}$  heterostructure. The resulting phase diagram shows reentrant behavior as the magnetic length decreases below the zero-field electron mean free path. By fitting our data to a predicted phase diagram we obtain a value for the localization length exponent  $\nu$ . As has been recently suggested, this value is between quantum Hall plateaus.

### **The study of radiation effects in emerging micro and nano electro mechanical systems (M and NEMs)**

Charles N Arutt<sup>1,15</sup>, Michael L Alles<sup>1</sup>, Wenjun Liao<sup>1</sup>, Huiqi Gong<sup>1</sup>, Jim L Davidson<sup>1</sup>, Ronald D Schrimpf<sup>1</sup>, Robert A Reed<sup>1</sup>, Robert A Weller<sup>1</sup>, Kirill Bolotin<sup>2</sup>, Ryan Nicholl<sup>2</sup>, Thang Toan Pham<sup>3</sup>, Alex Zetti<sup>3</sup>, Du Qingyang<sup>4</sup>, Juejun Hu<sup>4</sup>, Mo Li<sup>5</sup>, Bruce W Alphenaar<sup>6</sup>, Ji-Tzuoh Lin<sup>6</sup>, Pranoy Deb Shurva<sup>6</sup>, Shamus McNamara<sup>6</sup>, Kevin M Walsh<sup>6</sup>, Philip X-L Feng<sup>7</sup>, Louis Hutin<sup>8</sup>, Thomas Ernst<sup>8</sup>, Brian D Homeijer<sup>9</sup>, Ronald G Polcawich<sup>10</sup>, Robert M Proie<sup>10</sup>, Jacob L Jones<sup>11</sup>, Evan R Glaser<sup>12</sup>, Cory D Cress<sup>12</sup> and Nazanin Bassiri-Gharb<sup>13,14</sup>

... and between different publications

Important to establish guidelines for Speed School.

Experimental and theoretical challenges in the search for the quark–gluon plasma: The STAR Collaboration’s critical assessment of the evidence from RHIC collisions

STAR Collaboration

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“All scientists and engineers working at the Collider Detector at Fermilab are added to the standard author list. Every publication coming out of CDF uses the entire standard author list, in alphabetical order.”

## Which of these (on its own) justifies inclusion as author?

- Came up with idea for research project  **Authorship?** (  yes;  no)
- Provided financial support for research project 
- Edited, re-wrote paper from original draft 
- Operated piece of equipment used to obtain data 
- In charge of lab in which experiments were performed 
- Was formal thesis advisor for student who did work 
- Supervisor (department chair, dean) of faculty researcher 

What deserves authorship and what doesn't is not always sharply defined, however each author should have made a clear *intellectual contribution* to the paper.

## Avoid Honorary Authorships!

- Authorship granted to those who played no significant role in research
- Done for a variety of reasons:
  - Gratitude for previous favors
  - Honoring person in authority
  - Achieve greater credibility for work
  - Joint effort to pad resumes (common in group research projects).
  - Tradition, or accepted practice (in Europe (esp. Germany), standard to list head of department or institute as author on all papers).

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- writing a draft of the article or revising it for intellectual content; and
- final approval of the version to be published. All authors should review and approve the manuscript before it is submitted for publication, at least as it pertains to their roles in the project.

Some diversity exists across academic disciplines regarding acceptable standards for substantive contributions that would lead to attribution of authorship. This guidance is intended to allow for such variation to disciplinary best practices while ensuring authorship is not inappropriately assigned.

(From Yale University Provost's Office)

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Senior faculty members should be named as co-authors on work independently generated by their junior colleagues only if they have made substantial intellectual contributions to the experimental design, interpretation of findings and manuscript preparation.

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## General Guidelines for Authorship Contributions

<b>Contributions</b>	<b>Authorship?</b> ( <span style="color: green;">■</span> yes; <span style="color: magenta;">■</span> no)	<b>Comments</b>
<b>Design &amp; interpretation of results</b>	original idea, planning & input	 An idea alone may not warrant authorship, unless highly original & unique
	other intellectual contribution	 Yes, but assuming active involvement
<b>Supervisory role</b>	supervision of the project	 Yes, but assuming active involvement
	training, education	 No, unless substantive contribution made to study
	mentoring of 1st author	 No, unless substantive contribution made to study
<b>Administrative &amp; technical support</b>	resources: \$	 Acknowledgements yes, authorship no
	resources: animals, reagents	 No if already published; yes if novel
	resources: patients	 Maybe, depending on circumstances
<b>Data acquisition</b>	original experimental work	 Yes, unless only very basic
	technical experimental work	 No if routine; yes if novel methods added, or specific role, e.g., statistics, imaging etc.
	data analysis (assays)	 Yes, unless only very basic
	data analysis (statistics)	 Yes, unless only very basic (t-tests e.g.)
<b>Writing &amp; other</b>	drafting of manuscript	 Warrants first authorship
	reading/ commenting on manuscript	 Substantial feedback can be acknowledged
	none	 Includes honorary authorship for lab chiefs, celebrities etc.