

**Connections for Women:
Geometric Representation Theory**
August 28 to 29, 2014
MSRI, Berkeley, CA, USA

Organizers:

Monica Vazirani (University of California, Davis)

Eva Viehmann (TU München)

Organizer Report for Connections for Women: Geometric Representation Theory

As part of the rapidly developing research area of Geometric Representation Theory, the aims of the Connections Workshop were threefold. It focused on bringing together researchers from different topics within geometric representation theory. It gave junior researchers a broader picture of possible applications and of new developments, and established closer contact between junior and senior researchers. Besides, it aimed at encouraging and increasing the active participation of women and members of under-represented groups in the MSRI program.

Two speakers gave a series of 2 lectures each. While these were not quite mini-courses, they did allow the speakers to address the big picture, the motivating questions in their field, give plenty of examples, as well as theorems and even flavors of some proofs. Both of these speakers commented that preparing their talks benefitted them greatly by having them examine what motivates their research and why. One even formulated a new conjecture in the process of writing her talk as looking back over her work revealed new insights.

Other speakers gave 1-hour long lectures that were more like traditional research talks on cutting-edge developments (connected to the themes of the program and upcoming introductory workshop), giving them a chance to highlight the achievements of women mathematicians. The speakers were at varying levels of seniority or stages in their careers. (As well as from different countries.)

Notetakers took notes that will be available on the workshop website, along with the video recordings of the talks.

Postdocs were asked to chair several AM/PM sessions. The goal was to increase their visibility and also give them extra contact with the speaker they introduced. One of the session chairs later had a 2-hour mathematical discussion with the speaker she had introduced. For most, it was their first time chairing a session, so the lead organizer "coached" them through it. One participant noticed this and commented on how good an idea she thought it was. It also possibly exposed the chairs to some of the details behind the scenes of conference organization.

We held a poster session the first afternoon, at which 7 women presented their research. Before the group viewed the posters in the atrium, each presenter gave a 2-minute verbal summary of their poster in the lecture hall. By giving them only 2 minutes, they had to distill out the highlights of their work. Practicing presenting one's research in 2 minutes is a valuable skill -- for instance for upcoming job interviews. Some participants commented that they found the verbal introductions useful as it gave them more direction in navigating through the posters. Another goal of the summaries was to give these young researchers more visibility in the community. Poster presenters were also invited to submit a short abstract of their poster, to be posted on the workshop website. PDFs of the posters themselves

might also become available.

When participants were invited to give posters, the organizer's email listed a few links

<http://www.awm-math.org/workshops/posters.html>

<http://www.siam.org/siamnews/general/poster.htm>

which have instructions and suggestions on making posters. When the lead organizer commented on how amazing one participant's poster was, the presenter admitted she'd always found posters confusing, but after she read the information at these links, it was so clear and helped her to construct this excellent poster.

Since those who presented posters were too engaged in explaining their work, they did not get a chance to view others' posters, so we also put up the posters during lunch of the second day. (For this reason, it is important to have the poster session the first day.)

The first day there was a panel on building and sustaining momentum. The panelists first gave a short bio of themselves. The 5 questions the panelists addressed are below.

1. What advice would you give to women beginning a career in mathematics?
2. What obstacles have you experienced in maintaining an active research program -- and what solutions have you discovered?
3. Have you found productive collaborations -- if yes, how did these collaborations begin? Are there problems to avoid in establishing collaborations?
4. How have you found new questions and areas of interest beyond your thesis research?
5. Can you recall a non-traditional path you took at some point, or extra resources you demanded, as an example to others of what is possible but that they might not think of trying or asking for?

We also discussed the importance of single-authored papers and not writing all one's papers with the same collaborator when junior. Another interesting question that came up was about writing papers with spouses.

There were 4 panelists, but the lead organizer also asked one participant who was very experienced and savvy to be a "plant" in the audience. She gave a few comments and spoke up, sometimes answering questions that arose, so the audience would feel more comfortable turning this into a discussion instead of merely a Q&A session. This was extremely effective in stimulating discussion.

We had a banquet the first evening. (I am in favor of suggesting that one's nametag is one's ticket to

the dinner, so that participants will wear nametags and get to know each other and remember names better.)

Several participants commented to the lead organizer how useful and interesting they found the workshop and how much they enjoyed it. More of their comments should be available from the surveys. It is not yet known what new collaborations started from this workshop. However, one participant emailed us:

“Thank you for organizing another Connections for Women workshop—I have decided to return because I found these workshops so useful in the past. Last year I attended the Connections for Women workshop connected with the MSRI program "Noncommutative Algebraic Geometry and Representation Theory"—I presented a poster on my research in Lie theory even though it wasn't entirely connected to the topic of the workshop. I actually ended up meeting a collaborator there and we are currently writing a paper on a project which combines my expertise in representation theory and her expertise in noncommutative geometry. I presented a poster at this workshop about this research. I thought this might help illustrate why these workshops can be so helpful to the careers of female mathematicians.”

Organizers

First Name	Last Name	Institution
Monica	Vazirani	University of California, Davis
Eva	Viehmann	TU Munchen

Speakers

First Name	Last Name	Institution
Miaofen	Chen	East China Normal University
Christine	Huyghe	Universite de Strasbourg I (Louis Pasteur)
Vera	Serganova	University of California, Berkeley
Julianna	Tymoczko	Smith College
Marie-France	Vigneras	Universite de Paris VII (Denis Diderot)

Connections for Women Geometric Representation Theory

August 28-29, 2014

Schedule

Thursday, August 28, 2014			
9:15AM - 9:30AM	Simons Auditorium		Welcome
9:30AM - 10:30AM	Simons Auditorium	Vera Serganova	Combinatorics, representations and geometry of algebraic supergroups
10:30AM - 11:00AM	Atrium		Tea
11:00AM - 12:00PM	Simons Auditorium	Julianna Tymoczko	Springer representations and other geometric representations Part 1
12:00PM - 2:00PM	Atrium		Lunch
2:00PM - 3:00PM	Simons Auditorium	Vera Serganova	Combinatorics, representations and geometry of algebraic supergroups
3:00PM - 3:30PM	Atrium		Tea
3:30PM - 4:30PM	Simons Auditorium		Panel Discussion
4:30PM - 5:30PM	Commons		Poster Session
6:30PM - 8:30PM	MSRI		Dinner at Taste of Himalayas
Friday, August 29, 2014			
9:30AM - 10:30AM	Simons Auditorium	Marie-France Vigneras	Pro-p-Iwahori-Hecke algebras of p-adic groups
10:30AM - 11:00AM	Atrium		Tea
11:00AM - 12:00PM	Simons Auditorium	Julianna Tymoczko	Springer representations and other geometric representations Part 2
12:00PM - 2:00PM	Atrium		Lunch
2:00PM - 3:00PM	Simons Auditorium	Christine Huyghe	Survey over localization theorems for representation theory of Lie algebras
3:00PM - 3:30PM	Atrium		Tea
3:30PM - 4:30PM	Simons Auditorium	Miaofen Chen	Connected components of moduli spaces of p-divisible groups

Participants

First Name	Last Name	Institution
Darlayne	Addabbo	University of Illinois at Urbana-Champaign
Asilata	Bapat	University of Chicago
David	Ben-Zvi	University of Texas
Ana	Caraiani	Princeton University
Charlotte	Chan	University of Michigan
Miaofen	Chen	East China Normal University
Emily	Cliff	University of Oxford
Zsuzsanna	Dancso	MSRI - Mathematical Sciences Research Institute
Galyna	Dobrovolska	Columbia University
Anne	Dranovski	University of Toronto
Banafsheh	Farang-Hariri	Universite Paris-Sud (Orsay)
Rita	Fioresi	Universita di Bologna
Dragos	Fratila	Universite de Paris VII (Denis Diderot)
Elena	Gal	Tel-Aviv University
Adam	Gal	Tel-Aviv University
Iordan	Ganev	University of Texas
Emanuele	Ghedin	University of Oxford
Julien	Grivaux	Universite d'Aix-Marseille
Elmar	Grosse-Kloenne	Humboldt-Universitat
Vesselin	Gueorguiev	California State University
Yotam	Hendel	Bar-Ilan University
Johanna	Hennig	University of California
Florian	Herzig	University of Toronto
Christine	Huyghe	Universite de Strasbourg I (Louis Pasteur)
Pierre	Jaliniere	Universite de Paris VI (Pierre et Marie Curie)
Daniel	Juteau	Universite de Caen
Michael	Lau	Laval University
Ian	Le	University of Chicago
Ariane	Mezard	L'Institut de Mathematiques de Jussieu
Akhil	Mathew	University of California, Berkeley
Stephen	Morgan	University of Toronto
Emily	Norton	Kansas State University
Jacinta	Perez Gavilan Torres	University of Cologne
Darleen	Perez-Lavin	Florida Gulf Coast University
Dipendra	Prasad	Tata Institute of Fundamental Research
Catherine	Ray	Thiel Foundation
Shifra	Reif	University of Michigan
Kenneth	Ribet	University of California, Berkeley
Sean	Rostami	University of Wisconsin
Barbara	Schalke	Friedrich-Alexander-Universitat Erlangen-Nurnberg
Gus	Schrader	University of California, Berkeley
Vera	Serganova	University of California, Berkeley
Friederike	Steglich	Friedrich-Alexander-Universitat Erlangen-Nurnberg
Bolor	Turmunkh	University of Illinois at Urbana-Champaign
Julianna	Tymoczko	Smith College
Yakov	Varshavsky	Hebrew University

Monica	Vazirani	University of California, Davis
Marie-France	Vigneras	Universite de Paris VII (Denis Diderot)
Jiaowen	Yang	Ecole Polytechnique
Qiao	Zhou	University of California, Berkeley

Officially Registered Participant Information

Participants		50
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Gender		50
Male	44.00%	22
Female	56.00%	28
Declined to state	0.00%	0

Ethnicity*		50
White	68.00%	34
Asian	18.00%	9
Hispanic	2.00%	1
Pacific Islander	0.00%	0
Black	0.00%	0
Native American	0.00%	0
Mixed	4.00%	2
Declined to state	8.00%	4

* ethnicity specifications are not exclusive

27 responses

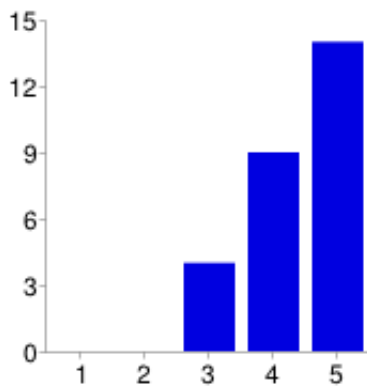
27 responses out of 50 participants = 54% response rate

[View all responses](#) [Publish analytics](#)

Summary

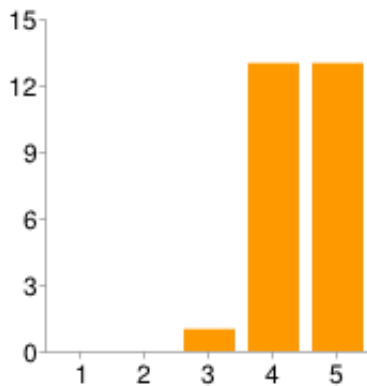
Workshop assessment

The workshop was intellectually stimulating



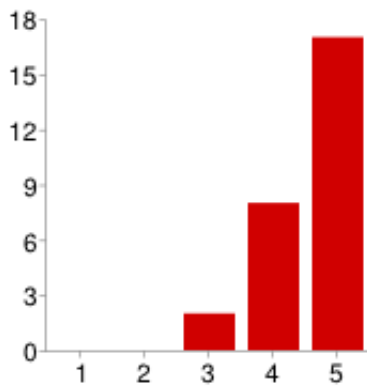
1	0	0%
2	0	0%
3	4	15%
4	9	33%
5	14	52%

The overall experience of the workshop was worthwhile



1	0	0%
2	0	0%
3	1	4%
4	13	48%
5	13	48%

The time between lectures was adequate for discussion



1	0	0%
2	0	0%
3	2	7%
4	8	30%
5	17	63%

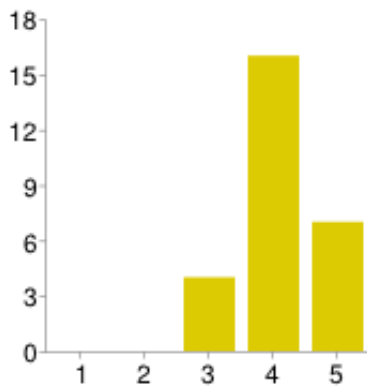
Additional comments on the workshop organization

I was a bit disappointed because the people who were there for the semester program didn't seem to participate in the workshop. It seemed many of the speakers were from the other program in number theory or were not involved in the semester program, and so the workshop was not as good for making contacts with people in the field of geometric representation theory.

chris marshall was very on the ball-- extremely competent. thanks.

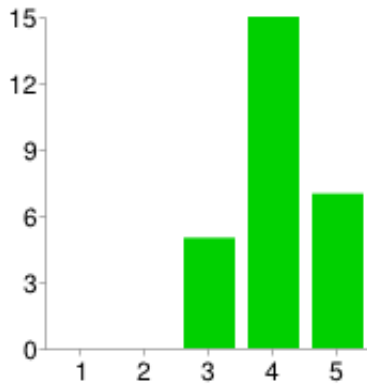
Personal assessment

I was well prepared to benefit from the lectures



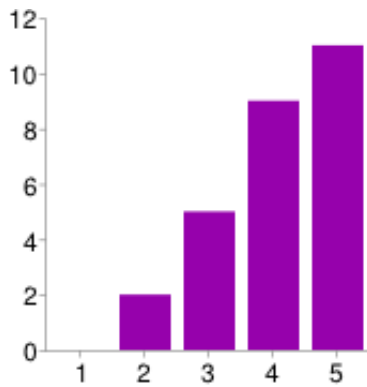
1	0	0%
2	0	0%
3	4	15%
4	16	59%
5	7	26%

My interest in the subject matter was increased by the workshop



1	0	0%
2	0	0%
3	5	19%
4	15	56%
5	7	26%

The workshop helped me meet people with similar scientific interests



1	0	0%
2	2	7%
3	5	19%
4	9	33%
5	11	41%

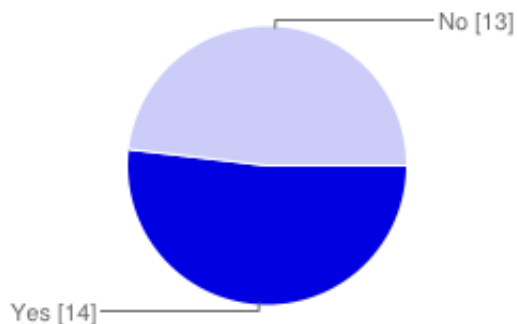
Additional comments on your personal assessment

Serganova and Tymoczko's talks were excellent.

It's very important to have activities that put so many women mathematicians in a room together, as it rarely happens w/o careful design.

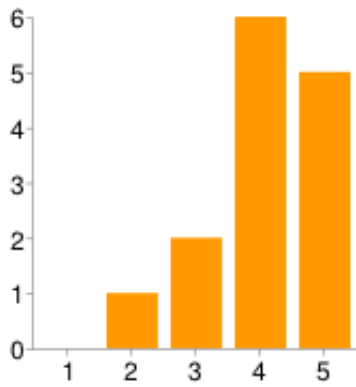
Additional Activities

Did you attend the panel discussion?



Yes	14	52%
No	13	48%

If you did attend the panel discussion, did you find it worthwhile?



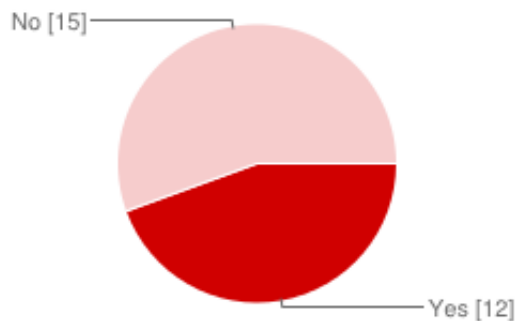
1	0	0%
2	1	4%
3	2	7%
4	6	22%
5	5	19%

What other subjects should be addressed in future panel discussions?

There should be more senior scientists (not just one)

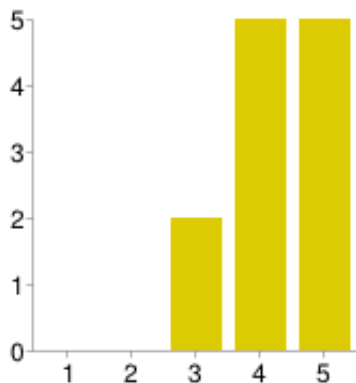
I think panelists should be briefed in advance about the kinds of questions that might be asked, so that they can be more prepared to answer them. Other than that it was great!

Did you attend the dinner?



Yes	12	44%
No	15	56%

If you did attend the dinner, did it help to solidify the contacts you made in the workshop?



1	0	0%
2	0	0%
3	2	7%
4	5	19%
5	5	19%

Please provide any comments on the dinner

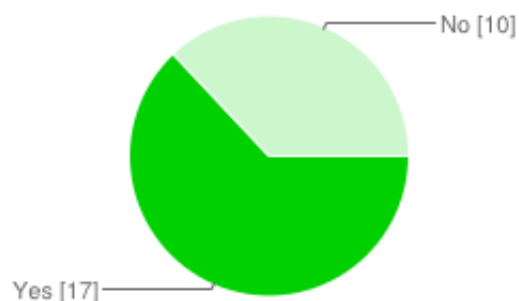
I would prefer a different restaurant/cuisine.

I

It was great!

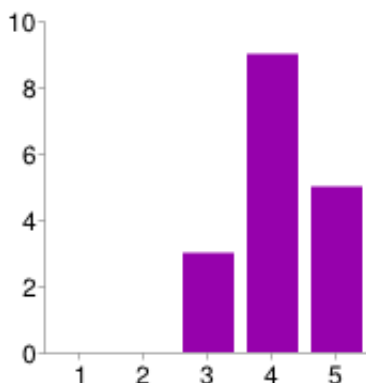
I didn't mind, but it might be good to tread carefully with respect to discrimination laws, when specifically not inviting male participants to dinner.

Did you attend the poster session?



Yes	17	63%
No	10	37%

if you did attend the poster session, did you find it worthwhile?



1	0	0%
2	0	0%
3	3	11%
4	9	33%
5	5	19%

Additional comments on the poster session

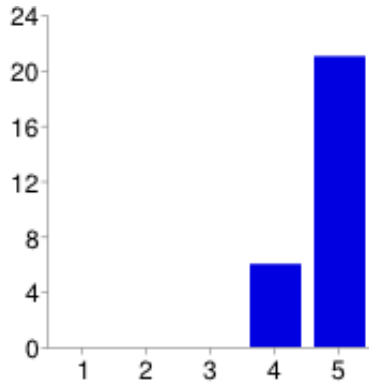
I was disappointed that we didn't present our posters until the end of the day, when many people had already gone home. The workshop was not integrated very well with the semester program--the only people who looked at my poster were other workshop participants and some folks from the number theory program, but no one participating in the program for geometric representation theory came to look at my poster. I was very disappointed by this.

It was a great idea to have the poster presenters summarize their posters briefly at the start of the poster session.

It was very good to have each presenter give an introduction to their poster before the session.

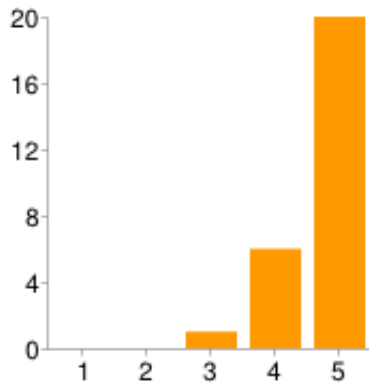
Venue

I found the MSRI staff helpful



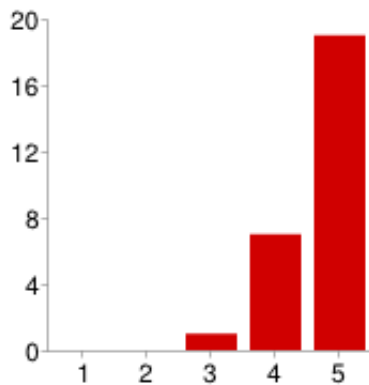
1	0	0%
2	0	0%
3	0	0%
4	6	22%
5	21	78%

The MSRI physical facilities were conducive for such a workshop



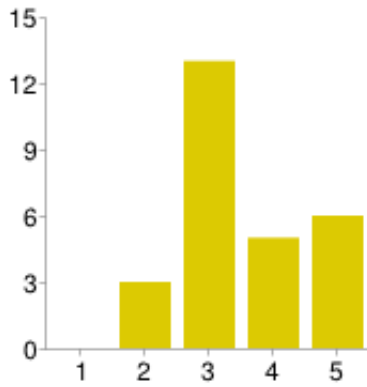
1	0	0%
2	0	0%
3	1	4%
4	6	22%
5	20	74%

The MSRI computer facilities were adequate for such a workshop



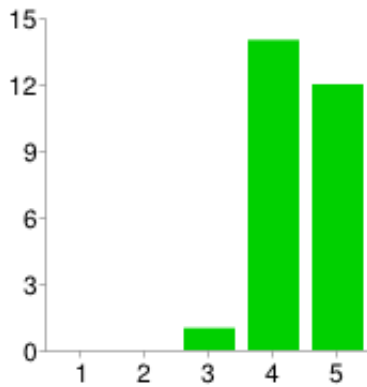
1	0	0%
2	0	0%
3	1	4%
4	7	26%
5	19	70%

The MSRI lunch arrangements were satisfactory



1	0	0%
2	3	11%
3	13	48%
4	5	19%
5	6	22%

The MSRI tea arrangements were satisfactory



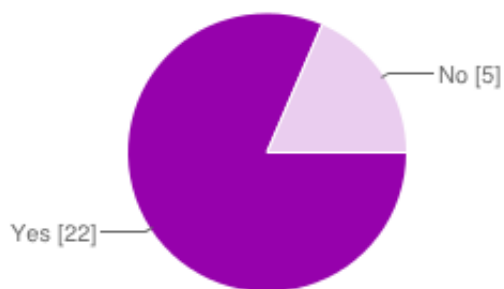
1	0	0%
2	0	0%
3	1	4%
4	14	52%
5	12	44%

Additional comments on the venue

I miss the hot food at lunch they had in summer '12.
 Wonderful place to visit! Loved it!

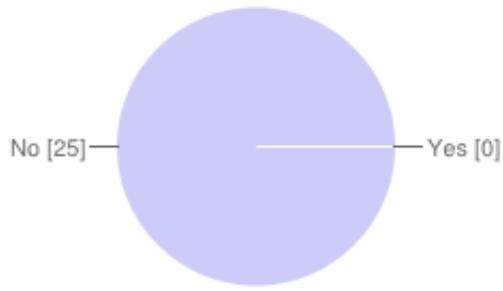
MSRI Wireless Network

Did you use MSRI's wireless network?



Yes	22	81%
No	5	19%

Did you experience any difficulties with the network?



Yes **0** 0%
 No **25** 93%

If you did experience difficulties with the network, please explain:

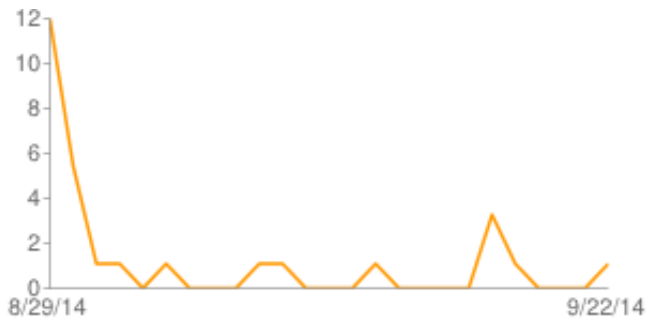
No responses yet for this question.

Thank you for completing this survey

We welcome any additional comments or suggestions you may have to improve the overall experience for future participants.

Vera Serganova's talks were fantastic and made my entire time at MSRI worthwhile.

Number of daily responses



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Additional Survey Responses

Additional comments on your personal assessment

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- It's very important to have activities that put so many women mathematicians in a room together, as it rarely happens w/o careful design.

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Please provide any comments on the dinner

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- I would prefer a different restaurant/cuisine.
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