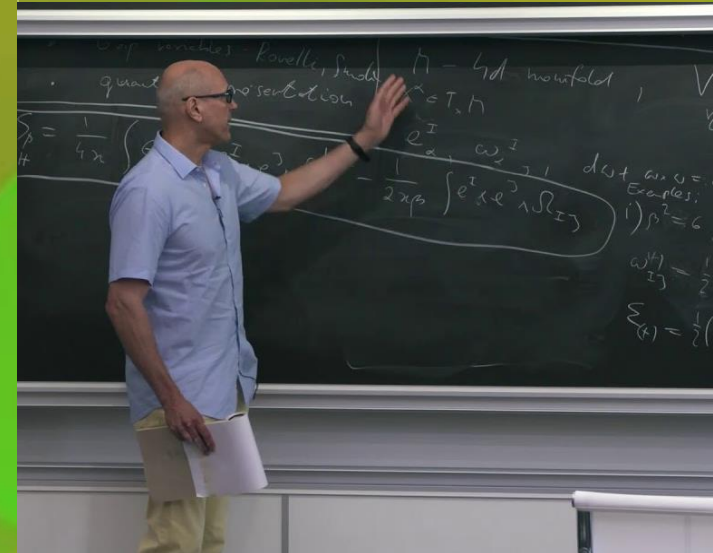


Jurek Lewandowski

- * Brilliant Postdoc
- * Inspiring Colleague
- * Dear Friend



CIRM CONFERENCE

I was fortunate to have had a 30+ year collaboration with Jurek. He came to Syracuse to work with me on a Fulbright Fellowship, recommended by his Ph.D. advisor, Prof. Trautman. We published our first paper in 1993 (completeness of Wilson loop functions on the moduli space of connections) and had begun a collaboration (with Maciej Kolanowski) on (gravitational waves in presence of a positive Λ) when he passed away.



With rigorous mathematical training, especially in differential geometry, Jurek began to make important contributions right from the start. Our styles were complementary, and we appreciated each other's strengths, making the collaboration very fruitful and tremendously enjoyable through out the 30+ years that followed.



But my association with Warsaw dates back a decade before; in Sep 1983 I participated in a trimester organized by Prof. Truatman at this very Banach Center; then I returned in May 1995 and June 1997 Canonical and Quantum Gravity workshops organized by Jurek here. I also participated in the Zakopane meetings Jurek organized in 2008, 2010 and 2011. And of-course I visited the Relativity group many, many times over the years, and fondly watched it grow under Jurek's leadership!

2. Gauge Theories

The ALMMT collaboration at Penn State: A tightly woven, joyous alliance!

- * Quantization of diffeomorphism invariant theories of connections with local degrees of freedom,
- * Closed formula for Wilson Loops for $SU(N)$ quantum YM theory in 2-d
- * Coherent state transform for (the infinite dimensional) spaces of connections.



The ALMMT Gang!

3. Quantum Cosmology:

- * Mathematical foundations of LQC (joint with M. Bojowald)
- * Quantum field theory on quantum cosmological space-times (joint with W. Kaminski)

4. Classical GR :

- * Geometry of generic non-expanding horizons (NEHs) and the first law of quasi-local horizon mechanics (joint with C. Beetle)
 - * Emergence of the BMS structure at scri from its NEH structure (joint with M. Kolanowski)
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When I heard the news from Elzbieta, I was in a total shock. My mind is still flooded by innumerable memories. The best way to express my emotions about our scientific collaboration is to recall what David Hilbert said at the untimely loss of his junior colleague and dear friend Hermann Minkowski. Hilbert's thoughts capture my sentiments succinctly.



Hilbert on the untimely passing of Minkowski:

“Our science, which we loved, had brought us together. It appeared as a flowering garden. In that garden there were well-worn paths where one might look around at leisure and enjoy oneself without effort, especially at the side of a congenial companion. But we also liked to seek out hidden trails and discovered many an unexpected view which was pleasing to our eyes; and when one pointed it to the other and we admired it together, our joy was complete.”

Jurek made many other pioneering contributions with members of his group to: The problem of BH entropy; Spin foams; Near horizon geometries; Asymptotically de Sitter space-times; Algebraically special solutions, ...

These were recognized by a number of international honors:

- Chair, LOC for GR20 and Amaldi 10.
 - The Senior Forschungspreis of the Alexander von Humboldt Foundation.
 - Election to Fellowship of ISGRG.
 - Visiting Professorships at BNU, FAU, PSU.
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-



Jurek cared deeply for his students and postdocs and younger colleagues elsewhere; extraordinarily generous with his time, and discussing science passionately with them everywhere he went: Mountain hikes; Beach; Ski slopes, ...




Jurek: A Dear Friend

Through our close interactions, Jurek quickly transitioned from a brilliant postdoc to an inspiring colleague in the 90s, and soon a close family friend.

To me he was like a younger brother. To our son, Neil, he was “uncle Jurek”. The delightful polish wooden St. Nicholas he gave us still graces our fireplace mantle during Xmas. And the husky puppy he gave our then 4-year-old Neil is still with us some 22 years later!!



A man with glasses, wearing a white shirt and a dark blazer, is sitting on a red sofa. He is holding a large flag with black and white diagonal stripes. The background features a modern interior with a large, ornate, golden-colored railing and a checkered floor. The text is overlaid on the left side of the image.

I miss you dearly, Jurek! I carry
vivid memories of the time we
spent together, always intense,
sometimes fighting, and above all
I miss the joy we shared while
admiring the new vistas that
emerged from our calculations
on black boards!

I also carry fond memories of the
time I spent with you in the
company of Elzbieta and Pawel.
They have been in my thoughts
constantly.