

Pierre Gy Sampling Gold Medal 2024 Award Justification

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The “History of the Pierre Gy Sampling Gold Medal 2003–2015” is described in [1].

The committee has deliberated extensively on the merits for candidacy for the PGSGM 2024. In a situation in which all ‘natural candidates’ for being awarded the PGSGM for “Excellence in teaching and application of the Theory of Sampling” having all been so honored in the period 2003–2022, the opportunity had (finally) arrived to ‘catch up’ and reach across a significant age gap in the PGSGM candidate pool at WCSB10 – It is also pertinent to address other representation issues if-and-only-if in compliance with the main scientific merit. A stray comment was heard from a committee member (undisclosed): “These two women also deserve gratitude and admiration for their professional achievements in a world often dominated by aggressive men”.

Considering this, the committee has decided on two worthy candidates as recipients of the PGSGM 2024 Medal to be awarded at WCSB11, May 21–23 2024, Gauteng, South Africa:

- Ana Carolina Chieregati
- Claudia Paoletti

The committee argues:

In solidum. Both Ana Carolina and Claudia have been ardent participants and supporters at nearly all World Conferences on Sampling and Blending. Additionally, they have extended considerable efforts to contribute to advancing the TOS and applications hereof – in two distinctly different TOS application arenas.

Table 1: The legacy of the PGSGM.

WCSB	Conference location	Recipient of the PGSGM
WCSB1 (2003)	Esbjerg	A. G. ‘le Bon’ Royle (1924–2013) – awarded 2010
WCSB2 (2005)	Brisbane	Pentti O. Minkkinen
WCSB3–4 (2009)	Cape Town	Francis Pitard, Dominique François-Bongarçon
WCSB5 (2011)	Santiago de Chile	Pedro Carrasco (1950–2011) – awarded posthumously
WCSB6 (2013)	Lima	Kim H. Esbensen
WCSB7 (2015)	Bordeaux	Ralph Holmes
WCSB8 (2017)	Perth	Richard Minnitt
WCSB9 (2019)	Beijing	Geoffry Lyman
WCSB10 (2022)	Kristiansand	Simon Dominy



Ana Carolina Chierigati

Ana Carolina is a Mining Engineer from University of São Paulo, has a master and a PhD degree in Mineral Engineering from University of São Paulo, and has a geoscience post-doctorate from the University of Aalborg (Denmark). Since 2002 she has been a lecturer and professor at the Department of Mining and Petroleum Engineering of University of São Paulo, teaching Mineral Exploration, Mine Reconciliation, Quality Assurance/Quality Control – and the Theory and Practice of Sampling. With 20 years of experience in sampling and reconciliation, she taught in South America and Australia, published several technical papers and book chapters, and participated in many mining projects in Brazil, Argentina, Chile, Honduras, New Caledonia, and Mongolia, most of them related to the optimization of sampling equipment and procedures in gold, zinc, copper, nickel, niobium, iron, phosphate, and bauxite mines.

Since her first presence at WCSB3, it has been a pleasure to witness Ana's enthusiasm in developing a deep understanding of the Theory of Sampling through WCSB conferences and interaction with eminent sampling experts around the world. As a professor, Ana is highly respected for her professional and personal care for her students, whom she regularly encourages to present contributions at scientific conferences etc. not the least at WCSB. She continues to prepare many students in the field of TOS for Masters and PhDs, supporting them with great vigor, while deliberately co-publishing with many of them. She is teaching TOS extensively, including outside academe and passes her critical knowledge and enthusiasm on to everyone she meets. This significantly reduces the age profile of those with a good knowledge and appreciation of correct sampling theory and practice.

In addition to her teaching, she has been a consistent contributor to research and development in the field of particulate material sampling, especially regarding empirical studies of heterogeneity, in which arena she has published extensively with a noticeable impact. She has taught TOS courses widely both at the University of São Paulo and elsewhere in South America. She has published ~15 focused sampling papers over the last 15 years or so, all of which provide great practical advice to the sampler.

In her mining rich home country Brazil, she has been instrumental in promoting TOS and has developed a strong profile at the mining scene all over South America. As a leader of practical projects in collaboration with Brazilian mining industries, she is much revered.

Ana Carolina is the right person to be awarded the PGSGM at this time of her career, representing the younger generations of scientists and technologists who have eagerly advanced the applications of TOS both in theory and in practice. Her efforts are massive and deserve this ultimate reward because she creates new „troops“ for us – using Pierre Gy's own words. Ana Carolina made a deliberate point to visit Pierre Gy during his last days (when at WCSB7); He was well aware of her efforts and very happy for the visit. As it turned out, Ana Carolina was the last of our community to be with him at that occasion, as is beautifully recorded in TOS Forum, Issue 6.



Figure 1: Ana Carolina Chierigati was the last of the sampling community to meet with Pierre in Bordeaux, the day after WCSB7, 2015.



Claudia Paoletti

Claudia Paoletti did her Master in Biological Science at the University of Rome (Italy) and her PhD in Plant Genetics at the University of Connecticut, USA. She was for three years at Dalhousie University (Canada) studying plant population genetics and biometry. She continued her activity at the Research Institute for Industrial Crops in Bologna (Italy) where she focused on the evaluation of the risks of transgenic crops. In January 2006 she joined the GMO Unit of the European Food Safety Authority (EFSA) first as Team Leader and then as Deputy Head of the Unit. In 2019 she was appointed manager of the programme designed to reorganise the EFSA in preparation for the new European Law on food safety. She has been the Italian expert for the definition of the European Commission sampling plans for GMO detection in conventional seeds. She coordinated the European sampling research project KeLDA and she has been the biometric officer of the EU Community Reference Laboratory for GMOs. She is an expert consultant for ISO/IWA committees, OECD, CEN, the European Commission and FAO. She organised international training courses on food/feed safety for the European Commission, UNIDO, PHARE project and universities within and outside Europe. She has over 90 contributions either as book chapters, or as peer-reviewed papers.

Claudia Paoletti arrived on the sampling scene with a BANG at WCSB2, Brisbane.

The committee is impressed by the enthusiasm with which Claudia has since embraced the objectives of the International Pierre Gy Sampling Association (IPGSA) and the application of TOS in the sampling of food, feed, and industrial agriculture: plants, seeds, fruits, nuts, grain. For 20 years she has played a key role in moving the sampling community forward, enhancing its profile and scientific integrity, and has played a pivotal role in ensuring that significant external impact is achieved through various International Pierre Gy Sampling association (IPGSA) working groups.

She has promoted TOS to many other important organizations in Europe and globally, WHO, ISO, OECD, CEN, FAO and FAO. She has organised international training courses on food/ feed safety for the European Commission, UNIDO, PHARE project and at universities within and outside Europe.

Claudia has been a most effective influencer within EU (EFSA) in showing the importance of TOS, an effort which is far from visible to the general public, but all the more important for “Food Safety”. Her groundbreaking study on sampling of soybeans for GMO in cargo ships arriving at EU ports, masterly showed that the first adopted traditional sampling plans for grain in general were based on wrong assumptions, which lead to dramatically wrong conclusions, a.o. leading to official standards and guiding documents giving faulty confidence in the official quality control in current in use. This is known as the “KeLDA” study, which is highly respected in many contexts.

She has published over 90 contributions either as book chapters, or as peer-reviewed papers, two of which are brought to attention here.



Figure 2: Claudia Paoletti to Hans S. Møller (WCSB2, 2005): “It is so difficult to sample those ‘sheeps’ the right way” – sigh!



Figure 3: Pierre Gy Sampling Gold Medal Committee, augmented the two with freshly minted WCSB11 medallists (center).

1) Claudia played a prominent role in the fruitful trans-Atlantic collaboration behind the seminal publication “Representative Sampling for Food and Feed Materials” (Jour. AOAC International (2015), a world’s first curated compendium of 15 contributions towards ‘TOS for food/feed Materials’. This publication is in fact a mini TOS textbook.

2) An important follow-up to the KeLDA study showed how TOS can be brought to bear on the issue of sampling for GMO components in ship cargoes of industrial feed soybeans. This study also introduced advanced variographics to elucidate several subtle sampling optimization issues.

Claudia Paoletti has of late taken on a greater level of organizational responsibility within the IPGSA. She is a very powerful diplomat in the service of our cause. Her tireless work is a manifest reflection of the mandate for the PGSGM: “Excellence in teaching and application of the Theory of Sampling”, for which she deserves this ultimate reward with all accolades.

Pierre Gy Sampling Gold Medal ab 2024

After the 2024 awardees were welcomed into the PGSGM committee, our community will appreciate a significant lowering of the average member age and a much-needed gender gap reduction – all undoubtedly for the greater good of IPGSA.

