



**LA TROBE**  
UNIVERSITY



Institute of Mathematics for Industry  
Kyushu University

## **2022 Forum of Mathematics for Industry: "Mathematics of Public Health and Sustainability"**

*under the auspices of Asia Pacific Consortium of Mathematics for Industry (APCMI)*

**21 - 24 November 2022**

Hybrid conference, in-person attendance encouraged

La Trobe University Melbourne Australia, host of the Australia Branch of IMI-Kyushu University

**Registration** will be free to paid-up members of APCMI for 2023.

**2023 membership** ¥5000

The Forum will include **invited lectures** and a **poster session** for students and early-career researchers with less than two years of postdoctoral employment. The adjudged best three poster presenters will receive significant prizes to support future travel.

Inquiries initially to [P.Broadbridge@latrobe.edu.au](mailto:P.Broadbridge@latrobe.edu.au)

## **Conference: "Statistics and Mathematical Modelling in Combination"**

**16 - 18 November 2022**

Contributed talks and invited lectures

Contributed talks may relate to but are not limited to the following topics:

1. Model identification, where statistical methods are used to deduce the coefficients of differential equations from a set of output data.
2. Inverse problems to determine transport coefficients in diffusion models from noisy data.
3. Evolution equations with uncertain model parameters.
4. Transport in random media.
5. Partial differential equations for pricing financial derivatives based on fluctuating stocks.
6. Stationary distributions of ergodic dynamical systems.
7. Path integrals to represent stochastic dynamical systems.
8. Boltzmann equation based on statistical dynamics.
9. Fractional-order differential equations to represent transport in fractal media.
10. Modelling real ecosystems.
11. Modelling complex economic systems.
12. Statistical change point identification for switching dynamical models.
13. Problems in the probabilistic interpretation of deterministic Schroedinger equation.

- Full registration AU \$150
- Members of Aust. Math. Soc. and Members of AMSI member institutions AU \$75
- Students and unemployed AU \$50

Note: Members of overseas societies with reciprocal agreements can join Aust. Math. Soc. with free membership in the first year. Registrants will be served light lunches. **Register here**

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