

# Martin kernel for Markov processes

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In my poster I will present results on boundary limits of ratios of positive harmonic functions related to a broad class of Markov processes and irregular domains. The starting point of our work is the Boundary Harnack Inequality proven in [2]. We divide the boundary into so-called accessible and inaccessible points and prove the existence of limits in both cases. As an application we prove a Martin representation theorem for harmonic functions.

The poster is based on an article [1], which is joint work with Mateusz Kwaśnicki from Wrocław University of Science and Technology.

## REFERENCES

- [1] T. Juszczyszyn, M. Kwaśnicki *Martin kernel for Markov processes with jumps* preprint(2015)
- [2] K. Bogdan, T. Kumagai, M. Kwaśnicki, *Boundary Harnack inequality for Markov processes with jumps*. Trans. Amer. Math. Soc. 367 (2015): 477–517.