

# THE JONES POLYNOMIAL AND QFT

## - PART I -

FEYNMAN DIAGRAMS, AN ORIENTED STATE MODEL FOR  $V_K(t)$

Federica Pasqualone

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In this first talk of the series, Feynman diagrams are briefly introduced in order to motivate our interest for knots and linked diagrams. We will then describe the behaviour of the Jones Polynomial evaluated on that diagrams and relate channel unitarity and triangle invariance to its coefficients constructing an oriented state model. The last part of the talk is dedicated to recall some basics in category theory, fundamental for further development of the subject.

## References

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- [EW] Witten, E., Quantum Field Theory and the Jones Polynomial, Commun. Math. Phys. 121, 351-399 (1989).