

# DYSON–SCHWINGER EQUATIONS AND QUANTIZATION OF GAUGE THEORIES (SUMMER '21)

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## 1. GAUGE THEORIES CONTINUED

This week we look at four papers:

i) *Complexes of marked graphs in gauge theory*, M. Berghoff and A. Knispel, Letters in Mathematical Physics volume 110, pages2417–2433 (2020)  
doi:10.1007/s11005-020-01301-0 [arXiv:1908.06640 [math-ph]].

ii) *The Corolla Polynomial for spontaneously broken Gauge Theories*, D. Prinz, Math. Phys. Anal. Geom. **19** (2016) no.3, 18 doi:10.1007/s11040-016-9222-0 [arXiv:1603.03321 [math-ph]].

iii) *The QED beta-function from global solutions to Dyson-Schwinger equations*, G. van Baalen, D. Kreimer, D. Uminsky and K. Yeats, Annals Phys. **324** (2009), 205-219  
doi:10.1016/j.aop.2008.05.007 [arXiv:0805.0826 [hep-th]].

iv) *The QCD beta-function from global solutions to Dyson-Schwinger equations*, G. van Baalen, D. Kreimer, D. Uminsky and K. Yeats, Annals Phys. **325** (2010), 300-324  
doi:10.1016/j.aop.2009.10.011 [arXiv:0906.1754 [hep-th]].

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