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## topic entry on series

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Owner pahio (2872) Last modified by pahio (2872)

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Author pahio (2872)

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Synonym topic entry on series of complex terms

There are in PM many entries on series whose terms are usually thought to be real but which can equally well be any complex numbers. It may be good to make a list of such entries, but of course include such ones concerning the proper complex (imaginary) term series.

- 1. http://planetmath.org/SeriessenGesadding and removing parentheses in series
- 2. convergent series
- 3. determining series convergence
- 4. convergence of complex term series
- 5. sum of series
- 6. remainder term
- 7. finite changes in convergent se-
- 8. manipulating convergent series
- 9. Riemann's theorem on rearrangements
- 10. necessary condition of conver-
- 11. harmonic series
- 12. http://planetmath.org/node/11971convergent summation by parts series where not only  $a_n$  but also  $na_n$  tends to 0
- 14. slower convergent series

of Olivier criterion

15. slower divergent series

- 17. absolute convergence theorem
- 18. limit of sequence as sum of series
- 19. sum of series depends on order
- 20. conditionally convergent real series
- 21. multiplication of series
- 22. Cauchy product
- 23. double series
- 24. absolute convergence of double series
- 25. Dirichlet series
- 26. convergence of Riemann zeta series
- 28. real part series and imaginary part series
- 13. http://planetmath.org/AGeneral@sation@foliovierSriteriongeneralization
  - 30. termwise differentiation
  - 31. theorems on complex function series

- 32. power series
- 33. identity theorem of power series
- 34. Taylor series
- 35. Laurent series
- 36. binomial theorem

- 37. quotient of Taylor series
- 38. Abel summability
- 39. Weierstrass double series theorem
- 40. infinity sum of reciprocal numbers