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if  $K(\alpha)$  has an odd [resp. even] number of components; in particular  $V_\alpha(q)$  can be defined for any  $q \in \mathbf{C}$ , not just for those corresponding to good traces on some  $\mathcal{A}_{\beta,n}$ . And, most importantly for the early growth of the subject, a computation in the summer 1984 with the trefoil knot showed that  $V$  is not a mere variant of the Alexander polynomial. In fact, during a few hours, this was thought to reveal a mistake in computations! See end of § 7 for more details on the independence of the polynomials.

One way to recover the two variable polynomial is to introduce a family of traces on  $H_{q,\infty} = \lim_{n \rightarrow \infty} H_{q,n}$ , indexed by a complex parameter  $z$ . This programme was pursued by Ocneanu, and exposed in §§ 5-6 above. Observe that

- (1) Only one of Ocneanu's traces pass to the quotient  $\mathcal{A}_{\beta,\infty}$ , namely that corresponding to  $z = q(q+1)^{-2}$ .
- (2) Ocneanu's traces are positive for some values of the pair  $(q, z)$  only: the picture appears in Wenzl's thesis [We] and also in [Jo<sub>4</sub>].
- (3) It does help to keep positivity considerations in mind when studying knot polynomials: see § 14 in [Jo<sub>5</sub>].

#### ADDED IN PROOF

1. V. Turaev has another and simpler proof of some of the geometric arguments given in § 11. See a next issue of this journal.

2. K. Murasugi has informed us that he has now proved conjecture C.

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