Hermitian Conjugation

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The theoretical physicist Paul Dirac (1902–1984) represented quantum systems' states using angle brackets. He designated a state by $|\psi\rangle$, which he called a"ket." He called the ket's Hermitian conjugate $\langle\psi|$ a "bra." The inner product $\langle\psi|\psi\rangle$ involves a bra and a ket but no "c" between them.

His is one of many competing notations for the Hermitian conjugate.

How do you, in text, disclose
complex versions of transpose:
Signify them via star?
Broadcast them by means of bar?

Friends, Hermitian conjugation
has degenerate notation.

Algebraists, one might ask:
Why put asterisks to this task?
Use of symbols astronomic
yields a discord inharmonic:
In some contexts, "Multiply
minus-one times every i"
is the message meant for us
in a sign siderius.
If you favor this convention,
calculate with apprehension:
Proofs can crumple from omissions
of the matrix transposition.

Nearer Earth, then, we must seek
symbols for Monsieur Hermite.

Physicists prefer the dagger;
hence their students bleed and stagger,
dabbing eyes with tissues teary,
from exams on quantum theory.

If you study waves and packets—
if you write out angle brackets—
if you use Dirac's notation—
caveat: His formulation
of the "ket's" Hermitian double
is the "bra"—for prudes, some trouble.

Since we share no one convention,
symbol space has great dimensions.
Though I love variety,
we've overshot satiety.
Without dimension unity,
we suffer from disunity.

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